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Special Articles

This Month

Control of Codling Moth and Black Spot
Re-Working Fruit Trees
Report of Fruitgrowers' Societies Meetings
Market Grower Section
Young Farmers' Activities
Personal News and Notes
Goulburn Valley Notes
Interstate Items of Interest
Canned Fruit News

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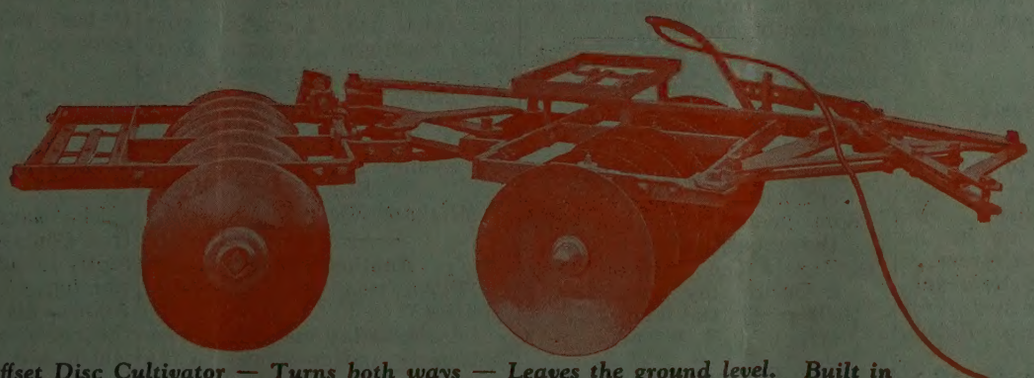

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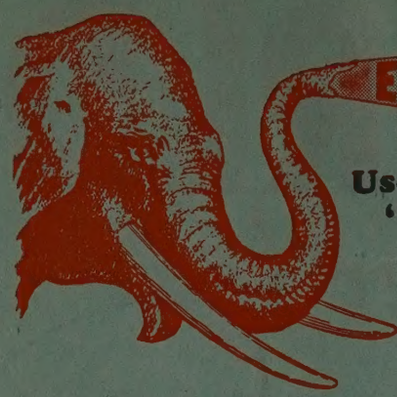

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Extract from "BETTER FRUIT," March, 1937, by Dr. R. L. Webster, Entomologist, State College of Washington, Pullman: CODLIN MOTH COVER SPRAYS—"Ever since the imposition of an arsenic tolerance in 1926, and even before that time, investigators have been testing other materials which may be used in place of lead arsenate. Following all these intensive and extensive investigations lead arsenate appears to have certain inherent qualities which place this material foremost as an insecticide for codlin moth control."

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PITHY BITS

By "Gadabout"

(Continued from last month.)

"GADABOUT" proudly salutes His Majesty's sons of the sea, land and air. Those brave boys of Britain, those mighty lads of the Empire, those wonder boys of Destiny. Unconquerable before the blizzard of death. You cannot conquer the Unconquerable!

What can be said of local marketing not already said as Gadabout thinks? Naturally, the Victoria Market problem penetrates the density of his limited wits.

Victoria Market.

This has been termed the heart of Victorian fruit and vegetable marketing. It never ceases to throb with activity, although it has spasms occasionally. It is a place of both order and disorder, of seeming confusion and yet it is a wonderful organisation.

As Gadabout wanders around he hears many remarks, criticisms, eulogies and grouches of the system of marketing observed. One man claims that the buyers (so called or mis-called the agent) fixes the price and therefore his own profit and that this system prevails in spite of protests. If this present system is wrong, what can we do to better it?

Growers' Interests.

One doesn't need to be very observant, however, to see that the fear of losing the Growers' "Representation" holds the Agent Buyer right up in the collar, working in the growers' interests. **"Toiling, Rejoicing, Sorrowing"** has earned (for them) a night's repose. But do they ever sleep?

Australians, English, Irish, Scotch, Chinese, Italians, Greeks and others working together and yet keenly competitive, but with one glaring weakness: **Prices are fixed on the principle of supply and demand, and an "over supply" means a smashed market to the loss of growers and buyer agents alike, and NO REMEDY HAS YET BEEN DISCOVERED.** Something should be done about it, so growers, express your views, and "Gadabout" will strive to help you.

Real Men.

What real men these men are, growers and agent buyers alike. And what characters: The characters of Pickwick papers are not in the hunt. The Australian language is spoken fluently and Diggers, bullock drivers and navvies are completely outclassed.

Just imagine this: "Gor' blimey Bill you ruddy old cow, how are you?" "Alright sweetheart," was the astonishing reply to the hoary-headed, hard knuckled, shirt-sleeved gentleman who gave the first salute and no one saw the humor. "just the market" and that is all that is in it.

Humor, temper, speed, deep thought, anxiety, vigor and keenness, all blend to make it what it is. **But here the growers succeed or fail, prosper or go more deeply into debt.**

Growers, what do you think should be done about it? Let's hear from you.

:: :: ::

A Surgeon cut off a Fruitgrower's leg,
Who yelled: "You've taken the wrong un."
"Oh," said the Surgeon, "see a Doctor, my friend,
He'll make the one left a strong 'un."

Organisation.

Like so many other industries, fruitgrowers need to get together and organise for their mutual benefit. Are they doing it? If not, why not? If the complaints one hears are valid, how can conditions be improved? Are you interested enough in the distribution of your products to offer some suggestions? If you are, send them in to Gadabout, who will analyse them in an attempt to co-relate all views and (possibly) expound an answer to some of our many problems.

In this way the marketing problems may be surveyed as one of the important phases of fruitgrowing and distribution, and thereby the grower and the buyer agent, as well as the consumer, will benefit. Gadabout is honestly seeking a way out for you and all concerned. Help him to help you by frankly discussing the problem as you see it.

CO-OPERATION ADVOCATED

Dear Gadabout,

Thanks for your article, and good luck to you. I've been carting fruit to the Victoria Market for over 20 years and am an old man before I'm a young one—ungodly hours and growers competing with each other in slaughtering prices.

I say we need a co-operative organisation to market our fruit. I am a grower by training and desire, and I enjoy the work on the orchard—but the marketing, the haggling, the uncertainty — growers "cutting each others' throats," are all hateful to me. I consider that the Southern Victoria Pear Packing Co.—a growers' co-operative company—should attend to marketing in Melbourne just as they do for overseas, also for Sydney and Brisbane.

SLEEPY GROWER.

Mitcham, Vic.

Another Matter.

"Papa, what is a traitor in politics?"

"A traitor is a man who leaves our party and goes over to the other."

"But what is a man who leaves his party and comes over to yours?"

"A convert, my boy."

PRICE OF SUPERPHOSPHATES.

Reasons for Increase.

THE Minister for Commerce (Mr. Cameron) recently issued a statement regarding the recent increase in the price of superphosphates in Australia. He claimed that the rise sanctioned by the Commonwealth Prices Commission was justified and that the increase had been kept as low as possible and that even so some of the manufacturing companies complain that fertiliser cannot be profitably produced at the price fixed.

The increase was announced as applying to the various States as follows:—W.A. and Eyre Peninsula, £1 per ton; N.S.W., Victoria and S.A. (other than Eyre Peninsula), 18/- per ton; Tasmania, 13/- per ton.

The Commission pointed out that the principal reason for the increased price was increased freight of phosphate rock from the islands by 21/9 per ton, as well as increased price of rock at point of shipment of 9d. per ton. Added to this is brimstone, cost of bags and cost of manufacture. He concluded that a review of the position will again be necessary before the end of 1940 owing to shipping difficulties and rising costs, but he urges all contributing parties to bear the conditions as their share of the war burden.

APPLE BY-PRODUCTS.

Activity in Tamar Valley.

The Tamar Valley Co-operative Company Limited has recently installed a factory for the canning of Solid Pack Sliced Apples, and it is believed that the cores, peelings, and Apples which are too small or badly blemished to go through the peeling machine, could be utilised in extracting fruit juice. Enquiries are being made into this by the company.

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News of the Month

THE WAR AND TRADE.

New Markets for Australia.

THE Near and Far East are already being affected by the European war, and traders in those areas are finding it increasingly hard to obtain their normal supplies. Without attempting to capitalise upon the misfortunes of others, the condition definitely opens up opportunities for Australia to extend her export markets to those centres of trade.

A visitor to Australia last month was Mr. F. R. van Esvald, who represents several Australian firms in the East. He stated, in an interview, that the war has stimulated a market for Australian goods in the Dutch East Indies which manufacturers should exploit. He was able to fill about 40 per cent. of orders recently brought to Australia as Dutch firms are finding difficulty in obtaining supplies from Europe. He also believed that if Australia strongly exploited that market she should be able to retain it after the war.

As showing the development of trade between Australia and Dutch Netherlands, it is noted that in 1934/35 Australia exported goods worth £1,186,023 and imports were valued at £4,390,327. In 1938/39 the figures were £1,379,600 and £7,119,785 respectively.

PERSONAL.

Mr. J. M. Ward, Supt. of Horticulture, visited N.S.W. and Queensland during August. While in Queensland he visited his son, Keighley, and observed his research work on "Little Leaf" of Apples.

Appreciation was expressed regarding the research work of Mr. Thomas, of the C.S.I.R. on fruit tree stocks at Stanthorpe.

Municipal elections were held in Victoria at the end of August. Among the results were the return of Cr. Walter Mock in the Blackburn and Mitcham Shire, and he now becomes Shire President. Mr. W. Tainton failed to get sufficient votes to secure his re-election.

In the Doncaster-Templestowe Shire, Cr. Arthur Ireland was returned unopposed.

NEW AGROSTOLOGIST.

Mr. W. D. Hardy Appointed.

Following the transfer of Mr. L. G. Kaleski to Soil Conservation Service, Mr. W. D. Hardy, B.Sc., has been appointed by the N.S.W. Department of Agriculture as Agrostologist at Goulburn. During the past two years, Mr. Hardy has been attached to the head office agrostologist section and has conducted studies in pasture problems. He graduated from Hawkesbury College with first-class honors and was dux of the college in his senior year. He also won the Agricultural Society's scholarship at the Sydney University, specialising in agrostology and gaining his B.Sc. degree in 1938.

FEDERAL ELECTIONS.

There is a quickening of interest in all national matters now that it has been decided to hold the Federal elections on September 21.

OBITUARY.

Australia suffered a great loss in the aeroplane crash on August 13, when several noted citizens lost their lives. Three Cabinet Ministers perished: Sir Henry Gullett, Brigadier G. E. Street and Mr. J. V. Fairbairn. Other victims were Sir Brudenell White, Chief of the General Staff, and several highly placed civil servants and airmen.

Fruitgrowers, especially feel the loss of Mr. "Jim" Fairbairn, whose electorate included so many orchardists. Mr. Fairbairn was himself a farmer and understood the needs of the

OBITUARY—(Continued).

man on the land. He was a frequent visitor to fruitgrowers' conferences and took a personal interest in discussing problems with growers. He held very definite views on the value of organisation among growers, and on every available occasion urged that growers should unite to maintain and develop the industry. Mr. Fairbairn was personally popular. He was the type of young man who could be ill spared in the strenuous days through which this country and the Empire are passing.

Mr. A. F. Bell, C.M.G.

The passing of **Mr. A. F. Bell** on August 14, removes an outstanding business executive. The late Mr. Bell was aged 64 at time of his death, but has crammed many commercial interests into a full life. A Scotsman by birth, he came to Australia with his parents when a boy. During his business career he was associated with Robert Harper & Co. Ltd., where he rose to be managing director. A director of the Union Trustee Co. and a member of the Board of the A.M.P. were some of his responsibilities.

He was chairman of the Australian Trade Publicity Scheme in Great Britain, and a member of the Commonwealth Dried Fruits Board, and in 1927 was a member of the Australian delegation to the International Economic Conference, where his experience in finance was availed of. He was honored with a C.M.G. for his services.

Mr. Chester Camm.

Another gentleman intimately associated with the fruit industry in Victoria was the late **Chester Camm,** who passed away last month after a short illness. As an engineer he was well-known in Victoria before being appointed engineer to the Croydon Cool Stores, where his ability in this sphere was appreciated. His interest in community matters was notable in the district and to his widow and family deepest sympathy is extended.

1,970 TONS OF BEANS.

Queensland produced 1,970 tons of beans last year. The Queensland season runs from May to October and, fortunately for the growers, fills the gap between seasons in Victoria and New South Wales. Many bean fields are planted between sugar cane plantations, the latter serving as wind breaks.

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Excellent Starting
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Letter to the Editor

APPLE CONTROL FAVORED

The Editor,
"Fruit World,"
Sir,—

I hear lots of criticism of the Apple and Pear Board. While I believe improvements are possible, based on the present year's experience, yet I ask my fellow growers to imagine the chaos, had no control scheme been in operation.

My experience in the 1937 glut has left an indelible impression. The best crop I ever had yet I lost money on the year's trading. Others were in the same plight. The Victoria Market was hopelessly glutted: lovely Jonathans bringing only 2/- a case and then we had to cart half the loads home. At the end of the season scores of thousands of cases of beautiful fruit were tipped. The same chaos would have reigned this season but for the control, especially with Tasmanian Apples arriving here. And next season the position will be worse if we have a normal crop, no export and no controlled marketing.

Yours faithfully,
"STATESMAN."
Wantirna, Vic., 29/8/40.

APPLE AND PEAR ACQUISITION.

The Fruitgrowers and Primary Producers Defence League report that they have received from a kindred Association at Orange a copy of the plans for the disposal of the 1941 Apple and Pear crop.

The prices, it was stated, ranged from 10d. a case for Apples and 1/- a case for Pears to the top price of 2/11 for Victorian Fancy grade Apples. Further, that provision was to be made to sell 7,000,000 cases on the Australian market; 1,000,000 to 2,000,000 cases were classed as less suitable for marketing, and 2,000,000 cases were classed as unmarketable.

Officials of the League stated they intended to fight these new proposals.

On the foregoing being published in the public press, the Minister for Agriculture (Mr. Hogan) stated that the authority to officially release details of the scheme was the Minister for Commerce and not the States.

CITRUS RECIPE BOOK.

The Victorian Citrus Association and the Publicity Department of the Victorian Railways are to be commended upon releasing a 70-page booklet containing a great variety of citrus recipes which should not only be welcomed by housewives, but also help materially in a greater consumption of citrus fruits. It ranges from appetisers to salads, from fresh fruit drinks to cakes and desserts, and from jams to beauty treatment. It is safe to say that a copy should be in every home.

Codling Moth and Black Spot

Annual Report and Results of Victorian Tests

AIDED BY A GRANT from the Commonwealth Government, demonstration plots have been established in Victoria during the past four years in an endeavor to test measures that will control black spot and codling moth, the two major problems in Apple and Pear orchards. The following is a study of the first three years' operations and a brief resume of the work done in 1939-40 season as reported in the Victorian Journal of Agriculture.

In 1936-37 season, work was conducted on 25 orchards. The practice of timing sprays was demonstrated to growers by the use of lure pots. The plots were then sprayed according to the extent of the moth catch and the pots. Lure charts and radio forecasts were used to spread advice upon spraying.

In 1937-8, 23 properties were similarly tested and various lure pots used and tested as to their attractant properties. A sweet port wine type was found to trap more moths than vinegar, molasses, Apple juice, cider, as previously used. In 1938-39, 24 plots were tested and greater use made of the wine lure. Growers were advised to use lures and the advisory service was extended with an expansion of the number of growers contacted by circular.

The schedules for codling sprays used varied according to district and variety and included:—

A. Straight lead arsenate 6 lbs. paste (or 3 lbs. powder) to 100 gals. water.

B. Lead arsenate for the calyx and first 1 or 2 cover sprays followed by white oil emulsion 1-80.

C. Lead arsenate calyx spray followed by combination sprays of lead arsenate and white oil emulsion until end November. 1-80 white oil emulsion was used for later sprays.

D. For canning Pears only — same as C but combination sprays were used throughout the season.

Ten lure pots were placed on each plot consisting of an inferior grade of sweet wine diluted with nine parts water. In warm weather a few grains of bluestone were added to prevent yeast growth. The lures were re-charged weekly and checked twice a week.

Showing "early pink" stage of Apple blossom.

Apple blossom buds showing "green tip" stage. The bud scales have separated from the majority of the fruit buds and the tips of the green folded leaves are just visible.

Recommendations.

Codling Moth.

THE CONDITIONS prevailing in the industry last season had an adverse effect on pest control which, in a number of instances, was relegated to a position of minor importance. A warning at this stage would not be untimely. Both black spot and codling moth are troubles which, although they may not be eradicated completely, can at least be controlled to such an extent that the damage they cause is no longer a severe economic loss. This control can be brought about over a number of years only by the thorough and intelligent use of best-known methods. If a general slackening should occur, there will be a gradual build-up of both these troubles —a trend which, unfortunately, began to show up last season. Should this continue, it will not be long before growers throughout the State will be faced with another problem of a most serious nature, and, when conditions become normal once again, the task of reducing the incidence of these troubles will be ever so much more difficult. It is very desirable, in the interests of the industry as a whole, that growers should continue to strive after clean fruit.

The timing of sprays is important, but it must be combined with thorough methods on the part of the grower. Trees must be sprayed with a sufficient quantity of material to ensure that fruit and foliage are completely covered. Where a heavy crop of fruit has set, it is necessary to thin the bunches; otherwise it is impossible to obtain a coverage at the stalk end, **and it is here that entries of codling moth are likely to occur late in the season.**

The practice of bandaging trees is widely adopted as a secondary control measure. Bag bandages are recommended for use on Pear trees because, if chemical bands are used, the rough nature of the butts enables larvae to pupate out of contact with the toxic chemical. Chemical bands may be used with success on Apple trees, provided all alternative cover, such as loose bark, is removed by regularly scraping the butts and limbs and filling all cracks. It must be remembered that bag bandages cannot be left longer than ten to twelve days without inspection; otherwise the pupae will have time to hatch. Bands should be attached to trees by the end of November except in the Goulburn Valley, where they should be in position a fortnight earlier.

Spray Schedules.

It is recognised that the suitability of spray schedules varies with different conditions, and the following recommendations will serve as a useful guide for the various districts.

Goulburn Valley: Schedule "A" should be satisfactory in this district, provided that the

Blyth's "BLUE BELL" Quality Sprays

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Extract from "Better Fruit" (U.S.A.), Spraying and Pest Control Edition, February, 1937.

CODLIN MOTH CONTROL

By Arthur D. Borden, University of California.

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Queensland: A.C.F. and Shirleys Fertilizers Ltd., Brisbane.
South Australia: George Wills & Co. Ltd., Gilbert House, Gilbert Place, Adelaide.
Western Australia: F. H. Faulding & Co. Ltd., 313 Murray Street, Perth.

Works: PRAHRAN GROVE, ELSTERNWICK, VICTORIA — L 1468.

Spraying Apple trees with arsenate of lead for the control of Codling Moth. Note the power spray (capacity 220 gals.) drawn by tractor.

sprays are well timed and a sufficient gallonage of spray material is given per tree. A thorough calyx spray is most important for Pears. On some of the taller trees this spray can be effectively applied only if long rods are used. Growers would be well advised to examine the calyces after spraying to make sure that the Pears higher up in the trees receive adequate protection.

Schedules "C" and "D" are useful in this district, where codling moth control presents a problem, but no recommendation can yet be made for their adoption as a general practice.

Provided attention is given to bandaging the trees and to other phases of orchard hygiene, little difficulty should be experienced in control.

Bendigo, Harcourt, Quantong, Pomonal, and Amphitheatre: In these districts, schedule "C" can be recommended to give the most effective control on all varieties of Apples and Pears except the Cleopatra Apple. For this variety white oil cannot be recommended unless previous experience indicates that such a schedule may be used without danger of oil injury. In these districts six to nine sprays for Apples and four to six for Pears are usually required.

White oil emulsion used for codling moth sprays also has a controlling effect on two other pests, San Jose scale and red spider, and, where consistently used, the normal Winter spraying for these pests has become unnecessary. Where Bordeaux mixture is used for the black spot sprays, an application of white oil in combination with Bordeaux mixture at the "green tip" stage will assist in the control of red spider.

Bag bandages are recommended, because magpies and other birds tear off chemical bandages while searching for larvae.

Metropolitan, Mornington Peninsula, and Geelong: Either schedule "A" or schedule "B" may be used in these districts. Where difficulty is experienced in control, schedule "C" can definitely be recommended. An advantage obtained by the use of schedule "B" is that fruit can be produced with a residue which is below the allowed tolerance (0.01 grains arsenic pentoxide per lb. of fruit). The necessity for washing the fruit is thus removed.

Where schedule "A" has been used and late moth activity, such as was experienced last season, occurs, control may be effectively obtained, without building up a heavy arsenical deposit, just prior to harvest, by the application of an oil spray. Such a spray may be used on Pears or Apples. Six to seven sprays are usually required for Apples and four to five for Pears in these districts.

Where black spot is troublesome in Apples and lime sulphur sprays are required during the season, it must be remembered that white oil cannot safely be used until three weeks after a lime sulphur application.

Chemical or bag bandages should be applied to trees as a regular practice.

North-east (Stanley), Gippsland, Diamond Creek, Hurstbridge, and Portland: For these districts schedule "A" will give satisfactory control. Codling moth is rarely a major problem in these cooler districts, and long periods may occur between bursts of moth activity. Nevertheless, the timing of sprays is just as important as in other districts in order that protection will be given when most needed, and sprays will not be applied unnecessarily. In these districts three to five sprays are required.

Spreaders: Calcium caseinate spreader may be added to lead arsenate at the rate of ½ lb. to 80 gallons. This will reduce the blotchiness of the cover. Although it has been shown that this type of cover is not disadvantageous from the control point of view, it is undesirable late in the season on colored varieties because it causes uneven coloring.

One pint of white oil emulsion added to the vat of lead arsenate has been shown to increase the efficiency of this spray by increasing its adhesive properties.

THE way insects rob an orchardist of his profits is "over-the-fence"! While there are some things, such as climatic conditions, that you cannot control, insects are a problem that you CAN do something about. The one best way is to kill them before they become insects, i.e. when they are still in the egg. Oil is an ovicide and Gargoyle is the best brand of White Oil you can use. With a control program while the trees are in leaf, grubs and insects will be kept in check, your fruit will be cleaner, and, as you know, "the less the blemish the higher the grade and price." Use only the highest quality spraying oil to "Stop These Orchard Thieves!"

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The "delayed green tip" stage of Pears.

Black Spot.

In spite of the wet conditions which prevailed during the Winter, black spot infection on all plots was low and in some cases negligible. No modifications can be suggested in present spray programmes. The important factors in control are to recognise the correct stage of bud development for a particular spray and to spray thoroughly, particularly the tips of higher leaders.

The various stages of Apple bud and fruit development at which sprays are applied are as follow:

1. **Green-tip:** This is recognised when the bud scales have separated from the majority of the fruit buds and the tips of the green folded leaves are just visible.
2. **Finger:** The young green leaves have separated from the blossom buds, which are beginning to separate in the cluster.
3. **5 to 10 per cent. blossom,** i.e., when only this proportion of flowers has opened.
4. **Petal fall,** i.e., when the majority of the petals have fallen.
5. **Fourteen days after the petal fall** application.

Recharging a lure pot on a demonstration plot.

Illustrations by courtesy Victorian "Journal of Agriculture."

Bordeaux mixture 6:4:40 is always applied at the green-tip stage, and is then followed by a series of lime sulphur sprays at stages 3, 4, and 5. The strengths of these sprays are respectively 2¾:100, 2:100, and 1¼:100. For varieties not susceptible to russet, such as Cleopatra, Granny Smith, Delicious, Rome Beauty, and Dunns, Bordeaux mixture 3:3:50 may be used at the finger stage. This schedule is not suitable for the Jonathan, London Pippin, Yates, Rokewood, and Gravenstein varieties.

Pears.

The various stages of growth of Pears at which sprays are applied and the strengths of such sprays are as follow:—

1. **Delayed Green-tip:** When the maximum number of fruit buds has brown scales or bracts separating and the tips of the green folded leaves are just visible, apply Bordeaux mixture 6:4:40.
2. **Finger:** When the green leaves are separated from the blossom buds which are beginning to separate in the cluster, but before white petals appear, apply Bordeaux mixture 6:4:40.
3. **Late Calyx:** About three weeks after the fruit has formed apply Bordeaux mixture 3:3:50.

The above schedule is suitable for the Williams Bon Chretien and Beurre Bosc varieties. Only one Bordeaux mixture (6:4:40) should be applied to the Josephine, and this should be at an early green-tip stage. Any further Bordeaux sprays will russet this variety.

For Winter Nelis the application of the finger spray must be completed before any petals show pink, while the late calyx spray must not be applied within three weeks of petal fall. For clean-skinned varieties, such as Packham's, apply 1:1:50 Bordeaux mixture at the late calyx stage.

Control of Summer Spot.

If the above schedules are carefully adhered to, little trouble should be experienced from late or Summer spot. If the late spot appears, 6oz. each of bluestone and freshly-slaked lime should be included in each 100 gallons of lead arsenate or white oil spray. Where lead arsenate only is used for codling moth control, lime sulphur may be used at a strength of 1:100. If lead arsenate and lime sulphur are combined, add the lead arsenate plus ½lb. calcium caseinate spreader to the diluted lime sulphur.

Russet.

The problem of russeting, particularly with the Jonathan variety, occurs in some districts. This cannot always be ascribed to the spray treatment, but, if care is not observed in the application of Black Spot sprays, damage to the fruit may result. For Jonathans, the Bordeaux mixture spray should be applied at the early green-tip stage when the buds are just breaking. Injury may also result from the use of a combination spray of lead arsenate and lime sulphur. An increase in the soluble arsenic content of the spray occurs from this combination. The inclusion of calcium caseinate spreader or lime reduces the amount of soluble arsenic, but if weather conditions are showery and the spray dries slowly some damage may still occur. Under such weather conditions it would be more advisable to apply the sprays separately.

Acknowledgments.

The willing co-operation of growers on whose properties plots have been established, and the help given by the various organisations in connection with the advisory services, are very much appreciated by the Department.

PARASITES FOR PEACH MOTH CONTROL.

Effective Reduction Reported.

In 1933, the Geneva (U.S.A.) Experiment Station released a large number of parasites on an orchard badly infected with oriental peach moth and reduced the previous year's injury by 16 per cent. Last year a further test was made with a decreased release and the larvae population was reduced by half. The tests will be continued when even greater control is expected.

A NEW SPRAY GUN.

Deadly For Insects.

A new weapon for use in orchards and market gardens is announced in England. It is known as the Hauck Flame Gun and has been successfully used for controlling moss and lichen on old fruit trees and for killing eggs of insects on trees. It is also used for burning up weeds on driveways and in between rows of fruit trees. It is also used for sterilising the top of soil where seeds are to be sown as well as to burn up heaps of diseased prunings, stumps of uprooted trees and other such purposes. It should, however, be used with care to prevent damage to the trees.

FRUIT FLY CONTROL.

£1,000 Fund.

Co-operating with the C.O.D. Queensland, the N.S.W. Fruitgrowers' Federation has approved of a fund, probably of £1,000 to combat fruit fly in both States. The fund will offer a good reward for a practical scheme of control.

Pear blossom showing "finger" stage.

ROME BEAUTY v. GRANNY SMITH.

Cold Storage Tests.

THAT Granny Smiths gave better returns under cold storage than did Rome Beauties is the judgment of Boyes and Isaac, of Capetown, following a year's tests. Temperatures at three different registrations were used, 33, 35 and 38 degrees Fah. After storage the Apples were moved to a room kept at 65 degrees for from one to two weeks, and behaviour studied.

In Rome Beauties considerable superficial scald appeared, and although little fungal waste was noted the fruit lost firmness and flavor. The tests proved that Romes should not be kept stored for longer than 14 weeks, also that 33 and 35 were better than 38 degrees.

Granny Smiths stored well for longer periods and were quite firm and of good flavor after six months' storage. Superficial scald occurred, however, at about 12 weeks.

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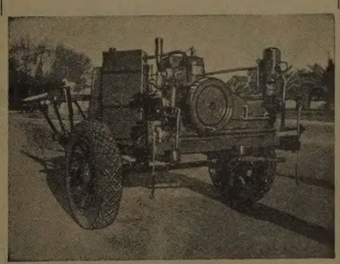

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Victorian News and Notes

CROP PROSPECTS.

Season Shaping Well But Some Districts Need Rain.

ALTHOUGH most parts of Victoria were dry up to July, scattered rainfalls were received during that month which changed the aspect of the fruit crop, and although more rain is needed in most areas, especially for catchments, the Department of Agriculture, report in mid-August suggests a promising fruit yield.

Jap. Plums, especially in the metropolitan area, promise good crops. Apples and Pears were reported satisfactory, except in the N.E., where weak budding was reported following the dry conditions. The Peach prospects were good. The heavy crop of Oranges in the Swan Hill district resulted in small samples and low prices. Grapefruit were holding well and losses were light.

SHEPPARTON DOES ITS BIT.

550 Enlistments to Date.

That fruit growers are pulling their weight in the national crisis is shown in a report that up to the end of July, when recruiting was temporarily suspended for the A.I.F., Shepparton had provided no fewer than 550 young men from the district. This has entailed much adjustment of labor arrangements, but no doubt the older men left behind will rally as they always do, to this added responsibility. Other districts have also contributed much in the national emergency.

Italian Workers Dismissed.

Though acceding that all Italians are not Fascists, the Ardmona Fruitgrowers' Association recently decided that all enemy aliens be dismissed from members' orchards. This followed objections by the local branch of the Returned Soldiers' League to the employment of Italians on orchards. It was pointed out that many Australian workers were disinclined to work with enemy aliens. Members were instructed to effect dismissal within one month.

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Lime Sulphur Wash
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Copper Sulphate Neige
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Guaranteed 40 per cent. Package, 1 Gal. ½ Gal.

Prepared White Oil
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CARE OF SOLDIER'S ORCHARDS.

Excellent Service in Southern Victoria.

THE recently formed Metropolitan Enlisted Fruitgrowers' Committee is doing good work in Southern Victoria in regard to pruning, spraying, cultivation and general care of orchards of enlisted men. There are many willing helpers and good work is being done. The Committee is as follows: — Messrs. F. Moore, V. Lawford (Southern Pear Packing Co.); F. A. Bloom, C. Honybun (Fruitgrowers' Defence League); F. G. Beet, G. T. Knee (Southern Fruitgrowers' Assoc.); F. M. Read, Rolfe, Greatorex and Fletcher (Dept. of Agriculture).

CITRUS PACKING CHARTS.

Issued Free to Citrus Growers.

We acknowledge receipt of Citrus Packing Charts for 1940, which are issued free to citrus growers by the Gerrard Wire Tying Machines Co. Pty. Ltd., whose head office and works are at 18-24 Ireland-street, West Melbourne.

These charts, which are compiled by the Gerrard Company from information and charts supplied by the Horticultural Branches of the Victorian and N.S.W. Departments of Agriculture, are issued in the form of a folder, which embodies the following charts:—Oranges in the Standard 18 in. Case; Oranges in the Dump Bushel Case; Oranges in the Californian Pattern Export Case; Lemons in the Dump Bushel Case; Grapefruit in the Dump Bushel Case.

While this does not cover the complete range of cases used by the Australian citrus industry, the Gerrard Wire Tying Machines Co. Pty. Ltd. state that they believe the charts will meet the present demand. Information is also given as to the correct way to apply Gerrard Wire Seal Strapping to cases of fruit.

Copies of these instructive charts are available post free on application to the Gerrard Company at the address given above.

FRUIT NEEDED IN WAR TIME.

Appreciation from Palestine.

A year ago we published an article by the English physician, Dr. Josiah Oldfield, upon "Fruit and its Effect upon War." In a recent issue of "Hadar" (Palestine) this article was reviewed with appreciation expressed to the "Fruit World" for featuring such a sound analysis of the part that fruit should play under war conditions, and urges the British Ministry of Food to include fruit, especially Apples, in the supplies for the troops.

Reworking Fruit Trees

Stump Grafting Again in Favour

Some of the Finer Points of Various Grafting Methods of Pome Fruit Trees Described

By E. C. Whittaker, N.S.W. Department of Agriculture

BECAUSE OF THE DISLOCATION of the ordinary channels of Apple and Pear distribution, the present time is opportune for the reworking of uncommercial varieties.

In order to help growers to make an easier and better job of grafting, Mr. E. C. Whittaker, an experienced officer of the N.S.W. Dept. of Agriculture has compiled the following article. Writing in the N.S.W. Agric. Gazette, Mr. Whittaker states as follows:—

Many thousands of trees have been reworked throughout the State during the past few years, and generally speaking the work done has been eminently satisfactory, but here and there failures or partial failures have occurred which could have been prevented had the operator had a little more understanding of his job or taken just a little more care.

As most of the reworking which has been done during the past few years has been by means of the "refurnishing" method, I will deal first of all with various aspects of this method, and itemise them to avoid confusion. Let us, therefore, consider the matter of scions first.

Selection and Storage of Scion Wood.

Both these items are of great importance and a little extra time spent on either is well worth while. When selecting wood, care should be taken that it is obtained only from the best type of tree available, i.e., mature trees which have consistently borne good crops of good quality fruit.

Select only well matured wood of the current season's growth, with well developed buds and free from pest or disease. Laterals carrying weak buds, and strong-growing water-shoots should be avoided.

Select plenty of scions; to make a good job of "refurnishing," the graft should not be skimped. Also select scion wood of varying thicknesses, the larger ones for strap and stub-grafts and the remainder for bark side-grafts. Also avoid using the butt ends of laterals or the tips—the best developed buds are formed on about the centre half of a lateral.

Many failures have occurred through faulty storage of scions, and here let me say that I am not in accord with those who advocate that the scions should be slightly shrivelled at the time of grafting. In test, no apparent benefit accrued from the use of shrivelled scions, and besides this, some experience is necessary to know just when the laterals show enough and not too much shrivelling. Personally, I like the scions as fresh as possible under the circumstances and maintain that the little extra time taken to make a good job of the storing is time very well spent.

Two methods of storing scion wood have proved efficacious and simple. If cool storage facilities are available the scions may be placed in boxes embedded in moist sand and held at ordinary fruit temperature, or if this is inconvenient, or cold storage is not available, the scions may be buried in a cool, moist place until required.

The latter method, in my opinion, is the best and simplest, provided that one or two little matters are kept in mind. The spot in which the scions are buried should be well drained, and if long storage is desired, should be in such a position that the sun does not get on it. No harm is done if the wood is completely buried, but it should be spread out in a fairly thin layer on the bottom of the trench, covered with hessian to prevent it becoming too dirty, and at least 4 or 5 inches of soil placed on top.

Heeling-in the scions to about half their length is satisfactory as a rule, provided the site chosen is cold and free from the sun. The scions should be cut from the tree as late as possible, but whilst still completely dormant.

Preparing the Stock Trees.

Whatever method of refurnishing is practised, the first essential is to totally or partially denude the stock tree of all spurs, laterals and small secondary limbs along the main framework.

Personally, I favor the retention of any small limbs or laterals in good positions and filling up in between with side-grafts. These small limbs, etc., may be stubbed and simply and expeditiously worked by means of a form of oblique cleft-graft which will be described later, or if a little too large for this with an ordinary bark graft. I fail to see any good reason for cutting out a small limb, etc., in a good position. It simply means that the tree has an extra wound to heal over and no time is gained, as usually a side-graft has to be inserted merely to replace the limb.

Where possible this stripping of the stock tree should be carried out just prior to grafting. If for any reason it is necessary to strip before this, say, during Winter, it is advisable only to partly complete the job, leaving the tops and all small limbs, etc., to be cut off at the proper time. If a tree is totally denuded of all prospective leaf-bearing surface in the Winter it will after be found that the bark will not lift until well after the time at which it would in the ordinary course of events, thus reducing the grafting period.

Time of Grafting.

With the ordinary method of bark sidegraft the work should not be commenced until the bark of the stock tree will "lift" easily. **From experience gained over the past few years it would appear that from about early "pink" stage to calyx stage would be the best period.**

The work may continue so long as the scions remain in good condition, but although the "take" may be very good in the case of late grafts some care is necessary in our warmer districts owing to the danger of sunscald before the trees can develop enough foliage to protect the limbs adequately.

Methods of Grafting.

The three most popular methods of side-grafting in this State are the inverted L, the converging cut or V graft, and the awl or straight-split method. Of the three, probably the best results generally have been obtained with the V graft. It is simple, neat, and where the bark of the stock is reasonably thick no tacks are necessary, thus saving time.

Whatever type of cut is used on the stock tree, it is essential that the scion should be pushed home to the full extent of the cut on it, and should "sit" nearly on the stock limb.

When cutting, the first and most obvious essential is a good sharp knife—good results cannot be expected from rough cuts.

Scions should be selected according to the thickness of the bark so as to avoid splitting as much as possible. The scion cuts should not be overlong—from 1 to 1¼ inches is ample with the usual run of scions, and advantage should be taken of the slightly zig-zag nature of the wood when making the main

THRIPS MENACE.

Will There Be An Infestation this Spring?

EXPERIENCED growers in Victoria envisage the possibility of a Thrips infestation this Spring owing to the dry Winter and to other indications. Some growers have already given an additional red oil spraying, using 2 to 4 gallons of oil to 100 gallons water. This was to loosen the bracts of the buds in an endeavour to bring on earlier blossom in the hope of avoiding the flush of the Thrips infestation should this come along. It is necessary that this red oil spraying be completed before the buds begin to move. It has been noted that buds of Romes and London Pippins are among the last to move.

Another method of bringing on the blooms earlier is to mix a quart of white oil to every hundred gallons of Bordeaux.

The last mentioned was demonstrated during the last Thrips year on a southern Victorian orchard where two rows of Jonathans (with Shoreland Queen as pollenisers) were sprayed with Bordeaux which included the quart of white oil to the 100 gallons. These trees set 8 days before the balance of the orchard and had splendid crops, whereas the rest of the orchard suffered in common with other orchards in the State.

The opinion was expressed that it would be preferable to use ¾ gallon of white oil (instead of the ½ gallon previously mentioned), but for the danger of burning should lime sulphur subsequently be applied.

With **Pears** it is safe to add ½ to ¾ gallons of white oil to 100 gallons of Bordeaux, that is, where growers use the Departmental formula of using Bordeaux instead of lime sulphur.

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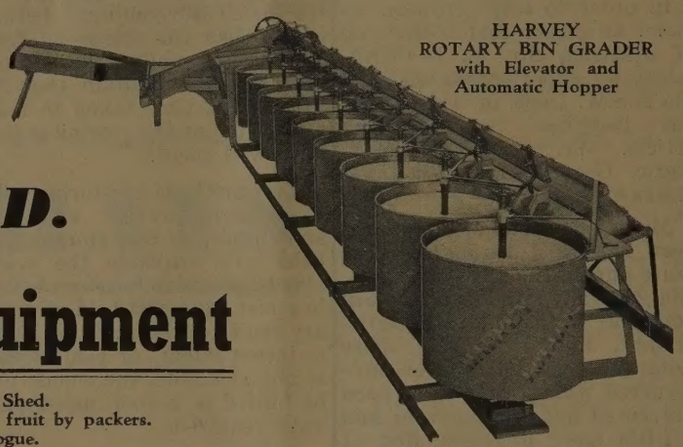

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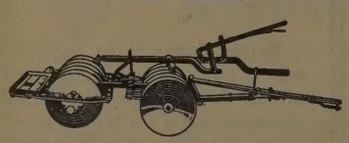

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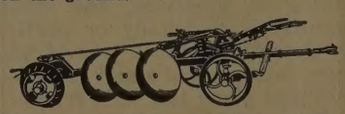

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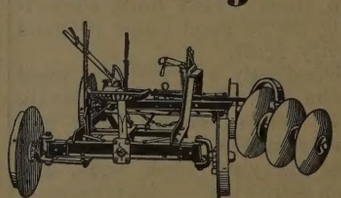

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REWORKING FRUIT TREES—(Cont'd. from p 9).

cut, in order that the scion should stand away from the limb a little when inserted.

On the tops of the limbs a strap-graft should always be used in preference to bark-grafts, or merely cutting back to a side graft, as is sometimes done. The advantages of a strap-graft far outweigh the disadvantages of a little extra trouble necessary to put them on, and if the method of cutting as shown in Fig 2b is adopted, the job is relatively simple. The main thing to remember about the strap-graft is to cut a fairly thick strap containing a good slice of wood—the most frequent cause of failure is cutting the strap too thin.

Sealing.

Various materials are used for the covering or sealing of the graft wounds, which is undoubtedly a simple operation. However, simple as it is, very many poor "takes" can be traced back to careless sealing. The object of sealing is to render the wound water and air-tight, and even if only a small hole is left —particularly between the scion and the limb—then this object is not attained and there is a very good chance of the scion "missing."

It is emphasised that considerable care should be taken over the sealing process. The whole wound should be carefully painted or waxed over and particular care taken to get whatever material is used worked well down behind the scion—between it and the stock limb.

After-treatment of Refurnished Trees.

Sucker shoots arising from the main limbs of the original variety should be rubbed out when the most forward are about 4 or 5 inches in length. Others may arise later in the season but can be cut out during the following Winter pruning if the "take" has been good and sufficient scions used when refurnishing. This sucker growth should give little trouble after the first season.

Observations to date indicated that the practice of Summer topping of the scion growth has little to recommend it, and in some cases noted it has proved definitely harmful.

The Pruning of Refurnished Trees.

For the first two or three years following grafting, the main aim of the pruner should be to bring the trees back into production as quickly as possible, and that end hard pruning of refurnished trees should not be practised. In fact, with much of the medium to weaker lateral growth, especially on the outside of the tree, no pruning is required the first Winter.

Leaders, of course, may be treated as usual, and also any strong-growing shoots which it is intended to turn into leaders or sub-leaders. Strong-growing or crossing fruiting laterals are better cut hard back to the weak basal buds, thus inducing them to throw out weaker growth which will more quickly fruit.

During the second pruning any unformed laterals from the first year can be shortened somewhat, but not beyond the extension joint, otherwise they may be forced again into excessive growth.

Growers are often puzzled by the fact that many of the grafts on an apparently vigorous stock tree make comparatively poor growth during the first year. Such trees mostly make up for the lapse during the second and later years, but when pruning during the first Winter it is imperative that these weak grafts be not tampered with for, if cut, they mostly merely develop into small spurs. In fact, with such a tree it is often the best plan not to prune at all the first Winter, apart from cutting out any suckers of the original tree which may have developed during the latter part of the season.

Grafting Mastics.

The mastics most commonly used in this State are grafting wax, petroleum jelly and a proprietary bituminous product. The old type grafting wax is probably so well known as to render unnecessary any reference to it. Petroleum jelly and the bituminous mastic, however, owing to the fact that they may be used cold, are displacing the wax in general use and both of them under our conditions have proved efficacious; but they have certain disadvantages and a few points on the use of each may be helpful.

In the case of petroleum jelly the main trouble is a tendency

A demonstration of reworking at the Blackwood Experimental Orchard, South Australia.

to melt and run down the limbs during the warmer weather, scalding the bark and providing wonderful entry places for wood rot organisms. Thus, although in many orchards, when used judiciously, it has proved an excellent mastic, still it must be classed as a risky substance to use, especially in some of our warmer districts.

If, however, petroleum jelly is used, it should be of the heaviest grade as there are several lighter forms on the market which naturally will melt more quickly than the heavy crude jelly. Furthermore, the jelly should not be used over-lavishly, as, apart from the increased damage which may result from melting, it must be remembered that as it remains on the tree in its usual "tacky" state for years, it can be very troublesome in sticking to the clothes of pickers and pruners and also to the leaves and fruit of the tree.

The writer's experience is that although it is undoubtedly a good mastic, used properly and in our cooler localities, still it should never be used in the warmer districts, nor, in any district, on large wounds such as result from stump-grafting.

In the case of bituminous mastic, much trouble at times has resulted from cracking around the graft; but to a large extent this can be prevented sufficiently to ensure a good "take." This product should be used as "neat" as possible so long as it can be applied easily with a brush, and should be thoroughly stirred before using. Use only a small brush and see that a good thick layer of the material is applied over the wound and especially behind the scion in the case of side-graft. If the V or converging cut is used resealing should not be necessary, but with other methods it frequently is.

The bituminous mastic is excellent for stump-grafting, and as a dressing for saw cuts and tree wounds generally it is recommended since it has very good covering and lasting properties. For this latter work it should be thinned down somewhat with water to enable it to be brushed on more easily.

Stub-Grafting.

The practice of stub-grafting any suitable small limb and laterals on trees in process of being "refurnished" is one with a good deal to recommend it. The stub of such limb may be grafted by means of any of the following methods: — Bark, cleft, whip and tongue or a form of oblique cleft.

The first three are well known and commonly used, but a few words regarding the oblique cleft-graft may not be amiss. The advantages of this graft are its absolute simplicity, lack of need for tying, and quickness. It may be used on all kinds of pome fruits and has also given excellent results with Plums, Prunes and Cherries.

The small limb to be grafted is prepared by making a slanting cut to almost halfway through the limb—the cut need only be from ½ to ¾ inch in length, commencing about that distance from the base of the limb and extending obliquely towards the main limb.

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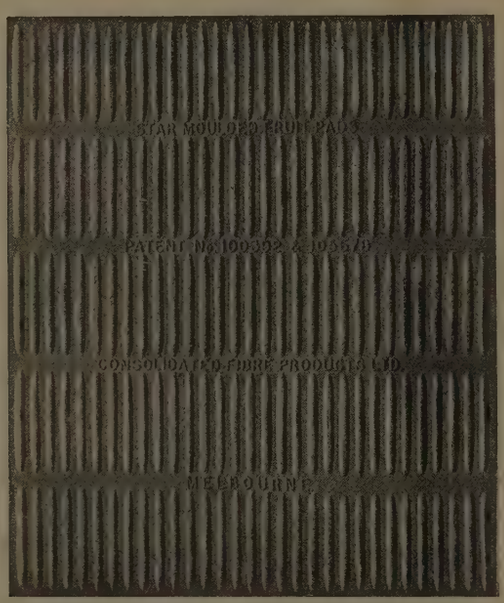

Moulded corrugated pads are the greatest advance ever made in fruit packing. They are resilient, odourless, moisture-proof. They act as a cushion and give better air circulation thus preventing damage to the fruit whilst in transit or in Cool Store.

SIZES:—12 x 6, 13½ x 6, 12 x 14, 17½ x 8, 17½ x 11.

"STAR" MOULDED FRUIT PADS are made in light grey or royal blue. These colours are fast dyes and will not taint the fruit.

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The scion is prepared by making a wedgeshaped cut, having one side slightly longer than the other.

The lateral or limb is then bent downwards, thus opening the cut, and the prepared scion is inserted, care being taken that the longer cut of the wedge is downwards. As with the whip and tongue graft, if the scion is smaller than the stock, it should be placed to one side of the stock cut to ensure that the cambium tissues of both are in contact.

When the scion is in position the limb may be released and cut off above the graft which, being clamped into position by the spring of the limb, needs no tacking or tying. Careful sealing over the whole wound is all that is now necessary.

In common with other forms of cleft-grafting, this graft may be used before the sap is running sufficiently to allow the bark to be stripped easily—thus extending the grafting season.

:: :: ::

Importance of Stump-grafting.

IN view of the peculiar conditions at the moment existing throughout the Apple and Pear industry, it would seem more than likely that some growers may consider a reversion to the stump-grafting method of reworking their trees preferable to the more costly method of refurnishing — especially so in view of the fact that a quick return to productiveness would not at present seem of such paramount importance as in normal times, whilst on the other hand, the matter of cost looms largely in a grower's thoughts. Consideration must be given, however, to the matter of invasion by wood-rot fungi as this is one of the arguments in favor of reworking by means of the "refurnishing" method.

It is the writer's considered opinion that stump-grafting is reasonably safe in many of our localities provided the trees to be worked are in good health and that the work is done on recognised sound lines. Old trees which are obviously losing vigor, or younger "staggy" trees, are very often unsatisfactory from a grafting point of view and in many cases would be better grubbed out.

It must be recognised, however, that the **Polystictus versicolor** and **Schizaphyllum commune** wood-rots in particular, are more prevalent now than years ago and that the very severe de-heading which was often practised then would, at best, be a risky procedure at the present time.

It is suggested that any reworking contemplated by the stump-grafting method be along the following lines.

The trees should be de-headed reasonably high—say 2 or 3 feet above the fork, according to the nature and growth of the tree. All lateral growth, spurs, etc., below the cuts should be retained to provide as much leaf surface as possible for the first year or two, or until such time as the grafts have attained a fair amount of growth.

As the wood-rot fungi gain entry to a tree through wounds the aim should be to get the saw cuts, etc., healed over as quickly as possible, and to that end plenty of scions should be used, and where possible the strap-graft should be utilised owing to its quicker callusing properties.

On small limbs, say, up to about 2 inches in diameter, one good strap-graft should suffice, but on cuts up to 3 or 4 inches across a strap-graft supplemented by several bark-grafts is necessary to ensure that the wound is callused over within a reasonable period.

Once the healing-over process is completed any superfluous grafts may be taken out—but not before. As previously mentioned, petroleum jelly is not advocated as a mastic for this type of work, but any of the old-time waxes or the newer bitumen compound should give satisfactory results.

Following grafting, vigorous growth usually arises from the spurs and laterals retained below the grafts, and from time to time this should be cut back in order to keep it below the level of the growing scions. If such growth is allowed to grow unchecked it will ultimately grow above the grafts and result in checking their growth.

After the first season this lower growth should be thinned out—all wounds on the limb stubs being painted over with bituminous mastic or a similar material as soon as possible. After the second or third year practically all this type of growth may be removed as the grafts by then should be able to furnish all the foliage necessary.

Comments.

An experienced Victorian grower who had perused the foregoing article, states that many valuable hints are therein expressed.

In particular, emphasis is laid on the value of the stump or crown graft, which system he deems to be more valuable than the peg or pole grafting system. Though stump grafting takes a year or two longer to make the needed fruiting wood, it is a better and more permanent job than the peg grafting.

With regard to the system of sealing, our friend has two methods to suggest to his fellow growers.

(1) The use of sand: when the new grafts have been firmly placed in position three thicknesses of folded newspapers should be placed around the trunk about 2 or 3 inches above the level of the cut stump. The centre portion should then be

(Continued on page 22.)

Goulburn Valley (Victoria) News and Notes

COMMENCEMENT OF IRRIGATION — STATIONARY SPRAY PLANTS SATISFACTORY — GOOD FRUIT CROPS EXPECTED — MEETING REPORTS — CODLING MOTH EXPERIMENTS.

(By Our Correspondent.)

DRY CONDITIONS still prevail in the Goulburn Valley; another month has passed without any rain, and conditions generally are now becoming serious; pastures are rapidly drying out and the condition of all cereal crops is most unsatisfactory. Unless substantial rains fall during the present month, Wheat crops will be almost a complete failure, especially in all dry areas in northern Victoria.

Irrigation is to start from September 1, and the channels are already full. It is expected there will be a keen demand for water, especially for irrigated pastures and fodder crops, while fruitgrowers will have to make an early start irrigating the orchards on account of the dry condition of the soil. All freshly planted trees should be watered immediately to ensure a good strike.

August has been a particularly busy month, especially with the spray pumps, when all Peach and Apricot orchards have received their annual spraying of Bordeaux mixture and William Pears and all export varieties have been thoroughly sprayed with red oil to combat the San Jose Scale.

In recent years many

Stationary Spray Plants

driven by electric motors have been installed in Goulburn Valley orchards, and they have proved great labor-saving devices, as the work can be done expeditiously and on time. Mr. F. Pullar, of Ardmona, is at present completing the extensions of a very large stationary plant on his extensive properties, while Messrs. Turnbull Bros. and W. Young are already receiving great satisfaction from their stationary plants, which were installed two years ago.

Fruit Crop Prospects.

The prospect for good fruit crops in the Goulburn Valley are bright and at the time of writing the orchards present a beautiful sight in scenic beauty. Peaches, Apricots and Plums are in full bloom, and all varieties show promise of a good crop, although it is expected that Apricots will not be so heavy as last year.

Pruning is now almost completed, and ploughing has commenced in most orchards. Those orchardists who did not break up their land in the Autumn are in for a difficult time.

Water Storage Position Reasonable.

"That the position of water storages at the present time was reasonable and with normal rains later in the Spring, restrictions were not likely to be imposed this season" was announced by Mr. H. D. Byham, the District Engineer of the Water Commission, when speaking to a meeting of the Shepparton irrigators to elect a board for ensuing year. After traversing the work of the Board over the last two years in connection with water rights and drainage matters, Mr. Byham quoted the following figures to show the comparative position of the storages over the last three years on August 10.

Eildon Weir (full capacity 306,000 acre feet)—

1938.	1939.	1940.
111,178	298,340	170,610

Waranga (full capacity 333,400 acre feet)—

1938.	1939.	1940.
222,780	310,000	237,000

Election of Board.

The following were re-elected to the Board: Messrs. V. F. Mills (market gardener); N. Hanlon, W. L. Eliason and W. Pearce (fruit growers), W. Farrell, B. B. Smith and E. J. Braybon (dairying and mixed farming).

Rodney Irrigators Meeting.

New Secretary Chosen.

Representatives of Undera, Harston, Tatura, Wyuna, and Merrigum attended the annual meeting in Merrigum of the Rodney Irrigators Defence League.

Mr. Theo. Davis occupied the chair.

A report from the Water Commission concerning the increase in the storages of Waranga and Eildon Weir was considered satisfactory. It was indicated that all channels were running to capacity and the Goulburn River was being kept at Summer level.

The election of officers resulted:—President, Mr. Theo. Davies; Vice-President, Mr. A. Wilson; Treasurer, Mr. W. R. Bray; Secretary, Mr. J. McIntosh.

PROBLEMS ON THE ORCHARD.

Cultural Notes.

THE Shepparton Fruit Growers Advisory Committee has issued the following information dealing with problems in the orchard for the guidance of members.

Apricots: The spraying of Apricots for the second time with Bordeaux 6:4:40 mixture for Shot Hole fungus is due at the peak bud stage. Conditions are favorable for the development of fungus diseases and you are urged to pay particular attention to this spray.

Peaches: The tar distillate spray should now have been finalised.

For the control of San Jose Scale a red oil spray should be applied immediately, and for the control of Leaf Curl a Bordeaux mixture 6:4:40 should be applied at the pink bud stage. Recent experiments have shown that Peaches sprayed with Bordeaux have shown greater resistance to Brown Rot and Rust development.

Note: As an alternative it is possible to use a combined spray containing Winter white oil and Bordeaux (6:4:40), but great care must be exercised in the mixing and at the time of application.

Black Peach Aphis: Any trees affected with Black Peach Aphis should be sprayed with nicotine and soft soap as often as is necessary to control the Aphis.

Pears: Where San Jose Scale is showing a spraying of red oil (1:15) should be applied before bud movement.

Orchard Hygiene.

Orchardists are again reminded of the great benefits which accrue where a complete programme of orchard hygiene is carried out. A full circular on this subject was issued on March 6, 1939, but it is opportune that some of the points should again be stressed.

When Spring ploughing, leave as narrow a strip of unploughed soil near the trees as possible, and before scraping the butts of

New Mandarin Seedling from Queensland

We have pleasure in announcing the introduction of A NEW MANDARIN, which is a seedling of the Emperor variety, with a **Distinct Grapefruit Flavour.** The habit of growth is strong and large leaved, not like the ordinary Mandarin foliage. This is very similar to the Orange and the tree is ABSOLUTELY THORNLESS and is a THIN SKINNED VARIETY.

Fruit Picked From Trees Last Year Weighed up to 16 ozs.

This new Mandarin, which is a rather late variety, should be a distinct acquisition.

Beautiful strong plants ready NOW, 10/6 each.

Packing and freight for Queensland, 1/6 extra; Interstate, 2/6 extra.

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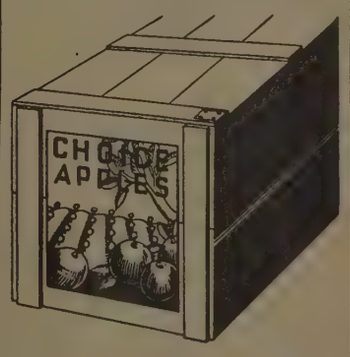

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THE PERFECT PLOUGH FOR EVERY PURPOSE

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Consider these few examples from the range:-

Sunkid Pony Plough

A very high clearance plough; excellent for hilling up crops planted in rows. Cuts a 7in. furrow. Clearance at throat, 21 inches. Vertical and horizontal adjustments on draught. Overall length, 6ft.

PRICE (bare) £3/10/–
With Depth Wheel, £4.

Sunvine Plough

Special for vineyards; will plough right up to posts and vines.

Adjustable, spring-mounted fender rod prevents contact of share with vine stem or tree trunk. Handles are adjustable for height. Available also with long handles and extended bridle for orchard work. Cuts furrow 10ins. wide and to 5ins. deep. Overall length, 6 feet 9 inches.

PRICE (with Depth Regulating Wheel) £5/5/-
Long Handles & Extended Bridle, 10/- extra.

Sunglint Single-Furrow Plough

A one or two-horse high clearance plough for sugar, maize, etc. Has beam of bobbin section steel, giving clearance at throat of 20 ins. Ample adjustment for draught both vertically and horizontally. Mouldboard is 25 inches long. Cuts furrows 12 inches wide to 10 inches deep. Length 8ft. 7in.

PRICE (bare) £5/19/6
With Depth Wheel . . . . . £6/ 9 /6
With Wheel & Knife Coulter £6/18/–
With Wheel & Circular Coulter £8/ 6 /–

Sunbuster Drill Plough

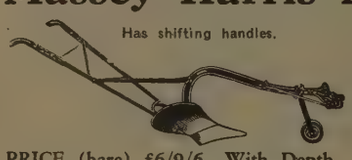
Has high arch beam of bobbin section steel.

Drills can be opened up from 6 to 12ins. deep. For deeper work, extension wings for boards are available (at extra cost). The chisel pointed share of hardened steel is 10 inches long and will cut rootlets cleanly, without dragging.

PRICE (bare) . . . . . £6/ 4 /6
With Depth Wheel £6/14/–
Wing Extensions for Boards, £1/17/6 extra.

Tractor Pull, 16/- extra.

Massey Harris No. 44 Plough



An excellent one-horse orchard or general purpose plough. High beam of bobbin section steel, giving clearance at throat of 20in. Is fitted with shifting handles and wide-range bridle which permits ploughing close up to vines or trees. Mouldboard 22in. long. Cuts furrows 7 to 11 inches wide and to 8 inches deep.

PRICE (bare) £6/9/6. With Depth Wheel, £6/19/-. With Wheel and Knife Coulter, £7/8/-. With Wheel and Circular Coulter, £8/3/6.

The prices quoted are for NET CASH. Delivery at Sunshine.
Ask your local agent for free leaflets; or write direct to—

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SUNSHINE HARVESTER WORKS, SUNSHINE.
Also at Melbourne, Sydney, Adelaide, Perth.
Queensland Distributors: H. V. McKay Massey Harris (Qld.) Pty. Ltd., South Brisbane.

Pear trees, hoe around the trees to remove all rubbish and mounds of earth. These are likely to harbor over-Wintering grubs.

When scraping pay special attention to the forks of the trees and the part of the butt below ground level. Apply bag bands to all Pear, Apple and Quince trees immediately. Examine the bands in September and then regularly from mid-November onwards.

CODLING MOTH

Field Experiments at Ardmona

As a result of a request of the Northern Victoria Fruit Growers' Association four years ago, the Department of Agriculture agreed to the necessity for an investigation into the control of Codling Moth in William Pears.

During the first two years of this investigation, life history studies were conducted on Codling Moth under Goulburn Valley conditions, to obtain precise information as to the activity of the pest in that area.

The information so gained has been of great assistance in field spraying experiments.

The field experiments have been conducted on the property of Messrs. Turnbull Bros. at Ardmona.

These field experiments for the first two years showed that a spray of 5 lb. of arsenate of lead to 80 gall. of water was the most economical to use. It was also found that a marked improvement in Codling Moth control resulted from the use of a spray schedule consisting of applications of a combination spray of 5 lbs. of arsenate lead paste plus one gallon of white oil emulsion in 80 gall. of water. Since, however, this spray was rather an expensive one, the field experiments for the past two years were directed towards modifying the schedule to reduce the cost without affecting the control of Codling Moth obtained.

With this aim in view a number of spray schedules were tested, which consisted of arsenate of lead 5 lb. to 80 gall. water plus varying amounts of white oil emulsion from 1 pint to 1 gall.

As a result of these tests it was found that the amount of white oil emulsion in such combination schedule, could be considerably reduced below 1 gall. in 80 galls. of water, without adversely affecting the control of the codling moth achieved.

It is hoped, however, that the schedule so found may be capable of further modifications, as a result of future work, so as to reduce costs without unduly altering the control obtained.

Shepparton Fruit Growers' Presentation of Ambulance to A.I.F.

Nearly 2,500 people, over half of whom were soldiers, were present at the official handing over to the A.I.F. of the £550 ambulance subscribed by members of the Shepparton Fruit Growers' Association.

The ambulance, which is somewhat different in design from the military ambulance used in Victorian camps, is designed for front line service abroad, and is equipped with tyres of particularly heavy type suitable for service in the rough sandy conditions of Egypt, or Palestine. Instead of the familiar round steel hood, it has a canvas hood and is well shaded at each end.

The presentation was made by Mrs. McDonald, mother of the local member, Mr. J. G. B. McDonald, M.L.A.

Mrs.. McDonald, one of the oldest residents of the Shepparton Irrigation Settlement, handed the keys to General Witham, G.O.C., Southern Command, in the presence of the Mayor, Cr. H. E. S. Bird.

The President of the Shepparton Fruit Growers' Association, Mr. N. Fairless, Mr. McDonald, M.L.A., and the managing-director of the Shepparton Fruit Preserving Co., Mr. A. W. Fairley.

Tribute to Red Cross by Mr. McDonald, M.L.A.

A striking tribute to the work of the Shepparton Red Cross was paid at the annual meeting of the branch on August 26, in the borough chambers, which was presided over by the President, Mrs. H. E. S. Bird.

In his opening remarks, Mr. McDonald referred to the work of the Red Cross in the last war. He said the additional comforts and care given the wounded troops made the society the wonderful organisation it was to-day.

It has made the Red Cross the one humane thing associated with war.

The Red Cross gives us the feeling that there is some human feeling left in the world. Something that will never be forgotten. The speaker urged his hearers to carry on the good work and to show calmness and courage.

Personal.

We regret to report that Cr. E. M. Little, of Mooroopna, Victoria, is on the danger list in Mooroopna Base Hospital. He sustained a severe stroke and at time of going to press he was still in a semi-conscious condition. Mr. Little is also a director of Ardmona Fruit Product Co-operative Ltd.

Obituary.

We regret to report the death of Mr. Edward Charles Borghese, a fruitgrower, of Shepparton East, Victoria, who was accidently shot while getting through a wire fence near his home.

The late Mr. Borghese is survived by a widow, to whom the greatest sympathy is expressed.

Goulburn Valley Notes

(Continued)

Young Farmers' Clubs

Continued interest in the work of the Young Farmers' Clubs at Shepparton district schools was reported by the departmental supervisor, Mr. A. Hedley Jones, on a recent visit to Shepparton. Mr. Jones reported as follows on the work undertaken at local clubs.

Grahamvale Orchard.

The Grahamvale Young Farmers' club is making good progress. The orchard contains 42 assorted trees. The ground has all been worked and the trees pruned. An active committee supported by Mr. Lawrey, the district Government orchard inspector, is assisting the head teacher, Mr. F. J. Vanston, to carry on this important community project. The school work is being well correlated by dealing with orchard pests, problems and methods of control. The members are receiving practical instructions in pruning, budding and spraying, and the general control of orchards, etc. Visits have been made to the local canneries and orchards. Regular club meetings are held and keen interest is being shown by all.

Plots at Lemnos.

Increased activity in Young Farmers' club work is being taken by the members at Lemnos. A large number of vegetable plots have been established, and the boys are very keen on the job. They are intending to devote the proceeds from the sale of the vegetables they grow to the Red Cross funds. A large flower garden attached to the school keeps the girls busy. There are more than 100 rose bushes alone, to be pruned and attended to. The head teacher, Mr. J. Murphy, is keen and willing to further the work of Young Farmers' clubs.

Shepparton East's Unique Project.

An unusual development has taken place in the Shepparton East Young Farmers' club. A project that is believed to be quite unique has been undertaken by the members, the raising of "Peach stocks." Firstly they have a seed bed of sand in which they place a large number of Peach stones. When the stones germinate they are transferred to rows in the garden. A few months later these are cut back and budded with a variety known as "Golden Queen," a very popular canning variety. They have 400 young trees which the members have budded, ready for sale. This club has also introduced flax into the district. The head teacher, Mr. A. P. Freckleton, has experimented with flax growing for several years with the result that six men in the district are now growing flax, and between them have an area of 22 acres under cultivation.

A beautiful flower garden surrounds this school. The members raise their own seedlings. One boy, Max Swainston, raised 2,000 Tomato plants and sold them.

Norman Fowler is the president of the junior club and Robert Kilpatrick the secretary.

Mooroopna North.

The Young Farmers' club at Mooroopna North is being resuscitated by the head teacher, Mr. D. J. Oliver. A community vegetable project is being established on the school ground. The object is to raise funds for comfort and Red Cross funds. The newly elected office bearers for the junior section are: President, Len Goodwin; Secretary, Margaret Dougherty. The district council elected Mr. G. Dougherty as President and Mr. D. J. Oliver as Secretary.

The Tatura Club.

The Tatura Young Farmers' club continues its activities. New pasture plots are being established and quite a large area is under vegetables. The floral part is conducted by the girls, who are raising their own seedlings. Last year 6,000 pansies were picked in one day and sent to the hospital. All of these activities are conducted on the grounds of the teacher's residence. Poultry as home projects are being undertaken by several members. The president of the junior section of the club is Dorothy Colliver, and the secretary is Ruth Gledhill.

(Further reports of Young Farmers' Activities on page 28.)

Fruitgrowers

Supplement Your Income By

Growing Tomatoes

Plants of the following varieties now available:—

HUTCHINSON'S SPECIAL IMPROVED LARGE RED: A prolific cropper, unequalled for marketing. 200 8/-; 1,000 30/-.

We also sell and recommend the following varieties: Burbank Improved (the earliest Tomato in the world); South Australian Red: Burwood Wonder; Wilding's Prolific; Velocity; Large Red, Yellow Top; Orange Prolific; Earliana; John Baer.

Prices: 200 6/-; 1,000 25/-.

No Orders Under 200 Supplied.

All our plants are growing in new cases, each case containing 200 plants; thoroughly hardened and ready for planting in the open.

Special Price for Larger Quantities.

Terms.—Strictly cash with order. Freight must be added for prepaid stations. Exchange must be added to all country cheques.

Thos. H. Hutchinson

Wholesale Nurseryman,
North Rd., Bentleigh, S.E.14, Vic.
Phone: XU 1336.

The Market Grower

A RECENT TOMATO VARIETY.

Rouge De Marmande.

IF PLANTED in limited quantities on the higher areas of N.S.W., the Rouge de Marmande can be recommended as a first early unstaked type, says Mr. John Douglass, Special Agricultural Instructor in the Agricultural Gazette, who adds:

The attention of growers, seedsmen, and others interested is directed to the fact that the Moroccan variety of tomato hitherto erroneously known locally as Range de Marmande is in future to be listed by its correct name of Rouge de Marmande.

This recently introduced variety is now in full commercial use on the north coast as a specialised type, and for the past season has proved to be the most profitable variety grown in this district. It is an exceptionally early maturer and a heavy cropper; the shape of the fruit is rather wrinkled, but selection work has already greatly improved it under north coast conditions.

The variety is recommended only on the very high Banana country on the north coast, which is free from frost throughout the year. Owing to the fact that this country cannot be irrigated, staking of the variety is not recommended.

Last year, despite a very late Winter, Rouge de Marmande matured the majority of its crop during September. Exceptionally high prices were realised for it, the variety proving much superior in quality to the Queensland tomatoes with which the market is heavily supplied at this time of the year.

EVER-BEARING STRAWBERRY.

"Twentieth Century" is Announced.

A promising new Strawberry variety announced by Mr. T. Kasuga, of Utah, U.S.A., originated by crossing Rockhill with Berri Supreme. It is said to be everbearing, forms runners and plants freely in the first Spring and Summer after setting, and bears up to three sets of plants in one season.

The fruit is large, wellcolored, firm and good in quality. It has a stream-lined appearance, hence its name Twentieth Century. It combines the good qualities of both parent stocks, carries well and is well colored. For jam making it holds both shape and color well and jellies better than some other varieties, it also freezes well. It was awarded a merit certificate at the 1939 Utah Fair.

LETTUCE.

The chief contribution to the production of improved varieties of lettuce in Australia has been made by the late Dr. I. C. Jagger, of the United States Department of Agriculture. Following the introduction and the demonstration by the Department of the marked superiority of these Imperial strains over old varieties, local seed firms have been progressive in quickly stocking seed of many of the best strains.

Imperial 847 and Imperial 850 continue to give better results than Imperial F, Imperial D, Imperial 615 and Imperial No. 12 as Summer lettuce producing large plants with good hearts which stand heat well. They are, however, not as good as Imperial F or Imperial D as Winter lettuce on account of their susceptibilty to mildew.

Two additional new varieties produced by the United States Department of Agriculture, viz. Imperial 8008 and Imperial 44, are considered by Mr. Shirlow, Plant Breeder at Hawkesbury Agricultural College, to be promising as Summer varieties on account of their ability to form good heads and to stand heat well, but they are of slightly different type to that of 847 and 850. Both 8008 and 44 produce lettuce of flatter form, the latter forming very solid heads not quite as large as those of Imperial 847, but distinctive on account of having more crinkled leaves. It has also good resistance to mildew and is suitable for Winter crop.

LATE SEASON TOMATOES.

Improved Varieties.

In recent years the Tomato demand has swung over to smaller quality varieties. In the Gosford (N.S.W.) district, always noted for early varieties, growers are turning their attention to Autumn and early varieties and late varieties are being developed, allowing marketing as late as July. Late varieties that have proved satisfactory include Pritchard, Improved Walkers' Recruit, Break o'Day, and Bonny Best. The former is perhaps the best in that district followed by Recruit.

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"Superior" (Rotary) Dusters

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THE NEW TRACTOR WITH "CLEAR-VISION"

The Market Grower

(CONTINUED FROM PREVIOUS PAGE.)

SECOND-GROWTH POTATOES.

Affect Price Returns.

MANY REJECTIONS of potatoes submitted as first grade are caused by growers including second-growth and malformed potatoes in with good, uniform, unblemished packs, says Mr. E. T. Morgan, of the W.A. Department of Agriculture, who points out that knobby tubers cannot be classed as No. 1 grade.

Some growers seem to be under the impression that protuberances or "knobs" can be knocked off the tubers and the trimmed product put into the bags. These injured tubers will come under the category of mechanically or digging injured potatoes and must be treated accordingly. It is unfortunate that the growing season just gone through has been conducive to the production of many second growth potatoes; nevertheless it behoves growers to so exercise supervision over digging operations as to avoid such being included in samples.

Potatoes grown under irrigation are prone to much malformation, especially where due attention has not been given to assure evenness of water supply. It is usual to find, in many paddocks, patches of land that will not allow of effective watering by seepage irrigation methods, and it is in such places that second growth on tubers is pronounced. It is hoped that growers will take heed of this advice in order to avoid the expense of "picking over" at the marketing end.

POTATO CROP LIGHT.

8,000 Tons Shortage.

Australia needs approximately 340,000 tons of potatoes for her 1940 supply, but will produce only about 260,000 tons according to estimates read in the House of Representatives by Mr. Cameron, Minister of Commerce early in August.

By States, the estimated production will be: N.S.W. 30,000, Vic. 65,000, Qld. 17,500, S.A. 17,000, W.A. 23,000, and Tas. 105,000. Importations of potatoes from overseas during the past ten years have not averaged over 50 tons per year, which suggests that the potato supply, even given good crop conditions, cannot attempt to meet the demand.

POTATO DISEASES AND PESTS.

65,000 Tons Lost Annually.

According to the estimate of a Committee appointed by the Australian Agricultural Council, the loss due to diseases and pests of Potatoes in Australia, exclusive of the virus disease known as Latent Mosaic, approaches 20 per cent. of the total yield to be expected in their absence. In terms of acreage and production, such losses mean the virtual waste of 25,000 acres of each season's planting and of about 65,000 tons of the production.

STORAGE OF PUMPKINS.

Unmatured pumpkins will go mouldy if kept long after being cut, and will not keep as well as ripened ones. Frosts will result in unripe samples, and such should be used as soon as possible.

It will be found that if the pumpkin is left until it is difficult to pierce the rind with the thumb nail, it will keep throughout the Winter, provided it has been pulled with a short stalk attached. Pumpkins from early sown crops keep better than those from late sown crops, as they have longer to ripen off.

Care should be exercised that pumpkins are not bruised in handling. They should be stored (preferably on slatted shelves) in a dry airy room, and should be examined from time to time, any showing sign of decay being removed.

MUSHROOMS AS A SIDE LINE

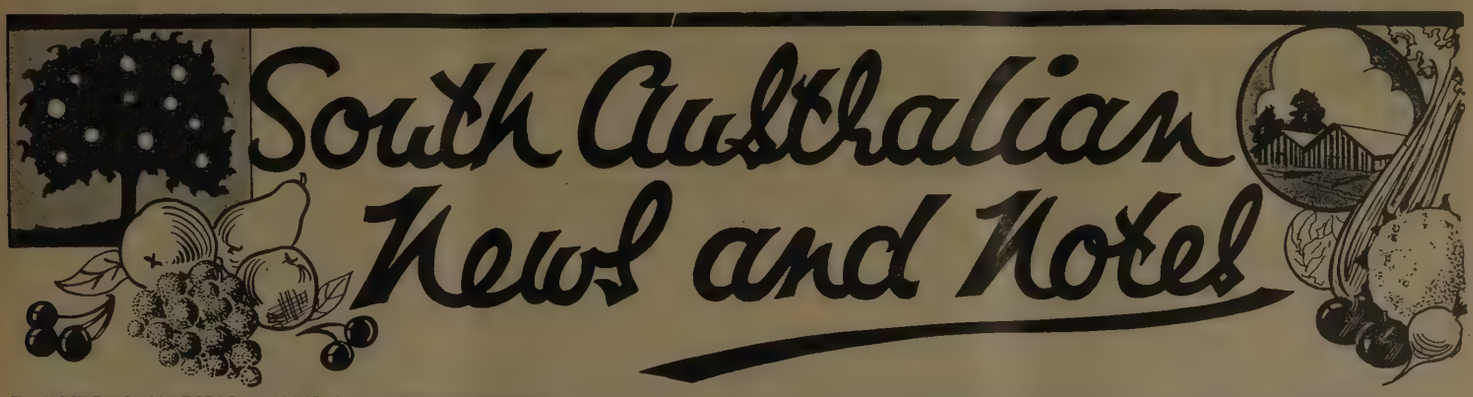
THOSE farmers who grow mushrooms as a sideline, in spare houses will be interested in an effective and economical method of fumigating described in an American exchange.

It consists of first preparing the house for a new crop by thorough cleaning and washing with water or a solution of 4 per cent. commercial formalin, after which the house is carefully sealed and fumigated with formaldehyde gas. The gas is obtained by vaporising commercial formalin diluted with an equal quantity of water in a small boiler heated by oil or wood, set up outside the house and connected with it by 2-inch iron piping. The house is then aired and the compost, pasteurised by high temperature fermentation, is laid and the spawn planted.

ICED WATER WASHING.

Improves Lettuce.

Success is reported by American growers who wash lettuce in ice-cold water. The spray not only cleans the lettuce, but pre-cools it so that it carries better and opens up at the market in better condition, the result being better price return to the grower.



INCLUDING OFFICIAL NOTES AND REPORTS FROM THE SOUTH AUSTRALIAN FRUITGROWERS' & MARKET GARDENERS' ASSOCIATION.

S.A. Fruitgrowers' and Market Gardeners' Association Incorp.

Meeting of Executive Committee

THE Executive Committee of the S.A. Fruitgrowers' and Market Gardeners' Assn. Incorp., met in the Board Room, 288A Rundle-street, Adelaide, on August 30, at 10.30 a.m.

The President, Mr. H. N. Wicks, presided over the meeting attended by: Messrs. F. B. Short, H. W. Parsons, O. Esselbach, A. O. Petersen, W. J. Bishop, J. B. Randell, H. B. Robson, L. B. Pfeiffer, C. W. Giles, M. J. Vickers, C. H. Ragless, C. J. Pitt, and the Chief Horticulturist, Mr A. G. Strickland.

Apologies: Received from Messrs. G. H. Schultz, G. T. Pitt, F. Hughes, J. Turner, L. J. Wicks and N. T. Hobbs.

Minutes of July meeting read and confirmed.

Agenda: Mr. W. J. Bishop moved: "That a board setting out the business for each executive meeting be displayed in the board room." Seconded Mr. C. W. Giles. Carried.

Correspondence: (1) Letter from the Minister of Agriculture, Hon. A. P. Blesing, signifying his willingness to declare open the annual conference on September 27. Received. (2) Letter from the Premier, Hon. T. Playford, stating his willingness to open the annual meeting on September 27. Received. (3) Letter from the Secretary of the Cheer Up Society, extending an invitation for members of the executive to visit the Cheer Up Hut. Received. (4) Letter from Secretary of the Barossa Branch, re visit of an Association Organiser. Mr. W. J. Bishop moved: "That the matter of organising in the Barossa Branch be deferred until after a discussion with Branch Delegates." Seconded Mr. H. B. Robson. Carried.

Branch and Sectional Reports.

Fruitgrowers' Society: The chairman, Mr. W. J. Bishop, reported that a most successful trading year had just been completed, and that the annual general meeting of shareholders is to be held on Friday, September 6, at 10 a.m.

Marion Branch: Mr. H. W. Parsons reported that the branch held its annual meeting on August 7, and a very successful meeting eventuated. Mr. Hedley Western was elected chairman of the branch, and the retiring president, Mr. J. R. Duncan as vice-chairman. The branch expressed its appreciation of the attendance of the chairman and secretary of the Association, and Mr. W. J. Bishop, chairman of the Fruitgrowers' Society.

Onkaparinga Potato Branch: Mr. Pfeiffer reported that the branch held its first annual meeting on August 28, when Mr. A. G. Strickland, Chief Horticulturist outlined the proposal for Potato Certification Scheme in S.A.

Reports on the activities of the various sections were received from the Citrus and Apple and Pear Sections.

Potato Section: Mr. A. G. Strickland, at the request of the chairman, outlined the proposal for Potato Certification Scheme in S.A., as explained at the Onkaparinga Potato branch meeting.

Cheerup Society: Mr. K. L. Rainsford, representing the Cheer Up Society, attended the meeting and spoke on the activities of the society in providing the needs of the Fighting Forces in Adelaide. The society is fully a voluntary one and various other Associations were donating foodstuffs, and he sought the co-operation of the Fruitgrowers' and Market Gardeners' Association in making donations of fruit and vegetables.

Mr. W. J. Bishop, supported by Mr. C. J. Pitt, moved a vote of thanks to Mr. Rainsford, and assured him of the support of growers of the Association.

Executive Representatives on Committee of Management of Society: The chairman intimated that it was necessary at this meeting to elect two representatives on committee of management of the Fruitgrowers' and Market Gardeners' Society Limited. The retiring members were Messrs. L. J. Wicks and W. J. Bishop, and both were eligible for re-election. Mr. W. Ind moved: "That the retiring members, Messrs. L. J. Wicks and W. J. Bishop, be re-elected." Seconded Mr. C. W. Giles. Carried.

War Savings Certificates: The chairman reported the decision of the last meeting to abandon the usual annual conference dinner, but growers were requested to make available the usual price of the tickets for the purpose of securing War Savings Certificates.

Wholesale Fruit Merchants of Adelaide: The Secretary reported that he had a request from the secretary of the Wholesale Fruit Merchants' Association of Adelaide, seeking representatives from the Association to join representatives from their Association in approaching the Market Company with a view of protesting against "jobbers" being allowed to operate in market lanes.

Mr. W. J. Bishop moved: "That we were prepared to meet the Merchants' Association to discuss the matter." Seconded Mr. H. W. Parsons. Carried.

Resolved that Mr. W. J. Bishop and H. W. Parsons be appointed to discuss the matter with the Merchants' Association.

Cheer Up Society: Mr. J. B. Randell moved: "That a subcommittee be appointed to co-ordinate efforts for the supplying of produce from growers to the Cheer Up Society." Seconded Mr. W. J. Bishop. Carried.

ANNUAL MEETING AND CONFERENCE.

Friday, September 27.

During September the annual meeting and conference of S.A. Fruitgrowers' and Market Gardeners' Association, will be held.

Meetings will be as follow:—

Friday, September 27, 10.30 a.m. Executive meeting.

Business:

Confirmation of minutes.
Correspondence.
Any other business.

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11 a.m. Annual Meeting.
Opening by Premier of South Australia (Hon. T. Playford).
Confirmation of minutes.
President's report.
Adoption of financial statement.
Election of officers.
Sectional and branch reports.
General business.

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2 p.m. Annual Conference.

1. Opening by Minister of Agriculture (Hon. A. P. Blesing).
2. Address by Mr. A. G. Strickland, Chief Horticulturist for South Australia, on impressions formed during a recent trip to the United Kingdom.
3. Discussion session. Various matters appertaining to fruitgrowing and market gardening will be introduced for discussion. Members can during this session, bring forward any matters for debate.

H. N. WICKS, President.
A. STUART, Secretary.

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Trees from nursery stock must be planted out NOT Later than September.
PLANT IN TWO OR THREE ROWS 12 TO 15 FEET APART.

STRONG SEEDLINGS ARE OFFERED TO LANDOWNERS:—

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S.A. Fruitgrowers and Market Gardeners Association

(Continued)

Sub-committee: Resolved that the sub-committee be composed of the President, Vice-President and Messrs. H. W. Parsons, O. Essalbach and R. A. Cramond.

Potatoes: Price Fixing and Limitation of Acreage.

Sir,—

As a grower I am not in favor of the idea, it seems to me to present too many difficulties, and altogether in opposition to the laws of nature.

Seasons, as we know, vary from year to year, some years we get a yield of eight tons to the acre, while others we get 16 tons, whilst another might be a complete failure.

This State has, generally speaking, had good crops these last two years, and prices have been very high, and fortunately for all of us, we had not agreed to limit our planting, if we had done so, what a loss we would have suffered. Therefore, seeing that we have reached the highest prices for many years with an unlimited scope for planting, where is the benefit of reduced planting? Also the fact that we have had good crops, and big money for potatoes proves beyond doubt that we do not grow enough for our own State's requirements.

Our prices have been governed by the other States, and if the merchants can import potatoes across the border at £6 per ton, we must be prepared to sell at the same rate, or not sell at all; it might be said that we will hold them for a better price, well we all know that they can be cheaper in September than in May or June, which means that it is a gamble whether we get more through handling them or not.

Another difficulty to overcome would be the question of grading; some growers, as we know, are more careful than others, and some land produces a much better class of Potato than others—would the grower that has the better class of line have to accept the same fixed price, whatever that may be, and only receive the same as the man who was either not so fortunate, or perhaps particular.

Would it be necessary to employ an office staff (thereby creating an overhead expense) to carry out these desires? I think so!

Would the second grade potatoes be offered for sale?

As a grower I think we can grow Potatoes equally as well as the other States, then if that is so, why shouldn't we do so, it means more employment, and more wealth to the State. We should at least grow enough for our own requirements, because thousands of pounds is spent on importations from other States.

Yours faithfully,
(Signed) H. NUSKE.
Lobethal.

Paper from Potato Shaws.

Dr. J. F. Tocher (consulting chemist, the Highland and Agricultural Society), at a meeting of the governing body of the North of Scotland College of Agriculture in Aberdeen, asked approval of trials to find out the possibilities of potato shaws for paper-making. In Germany, Dr. Tocher said, 30 per cent. of the paper made there was from potato shaws. He also asked sanction to carry out an experiment at the College's farm on the value of predigested straw compared with ordinary straw. Approval was given to carry out these experiments.

"Coming of Age" of Marion Branch.
Annual Meeting.

The Marion branch of S.A. Fruitgrowers' and Market Gardeners' Association Incorp. held its 21st annual meeting in the Sturt Hall on August 3. The meeting was exceptionally well attended, and a successful evening was experienced.

Mr. J. R. Duncan, who has been president of the branch for three years, declined to stand for another term, and Mr. Hedley Western was unanimously elected to the presidency for the coming 12 months. Mr. Duncan agreed to assist the president in every way possible, and was appointed deputy chairman.

The retiring president read to the meeting extracts from the first minutes of the branch. These proved very interesting, and very appropriate seeing the meeting marked the 21st anniversary of the inception of the branch.

At the conclusion of the meeting, members were entertained with refreshments, and a short toast list was honored. Mr. H. W. Parsons (branch delegate to the executive) screened one of his own films taken in the orchard of G. Western and Sons, Marion, and this was greatly appreciated by all present.

During the latter part of the evening, opportunity was taken to make a presentation to Mr. Norman Edwards (Assistant Secretary) who had recently been married.

The Association President (Mr. H. N. Wicks); Secretary (Mr. A. Stuart), and Chairman of Fruitgrowers' and Market Gardeners' Society Ltd. (Mr. W. J. Bishop) attended the meeting.

:: :: ::

Onkaparinga Potato Branch.

The first annual meeting of the above branch was held in the Woodside Hall on August 28. This is the "Baby" branch of

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the Association, and was formed in August, 1939.

The progress made over the past 12 months was outlined by the chairman, Mr. L. B. Pfeiffer, and great credit is due to the committee for the importance this branch has assumed. Seeing the branch is still in its "teething stage" it was decided to re-elect the officers for a further term.

One of the main activities of the new branch is its endeavor to introduce a scheme for Potato Seed Certification.

The committee has been in close contact with the Department of Agriculture on the matter, and the Chief Horticulturist (Mr. A. G. Strickland) was present at the meeting to outline a proposal applicable to South Australia.

Mr. C. J. Pitt, Association representative in the Federal Potato Advisory Committee, addressed the meeting.

Other visitors were Mr. D. Adams, of Waite Institute, and the President and Secretary of the S.A. Fruitgrowers' and Market Gardeners' Association.

Sectional Meetings.

Mr. C. W. McRostie, the Association Market Representative in Melbourne, will be in Adelaide on Monday, September 9, 1940, and will address meetings as follow:—

Sept.—

9—Tomato Sectional Committee.

10—Tomato Section General Meeting.

11—Celery Sectional Committee.

:: :: ::

Death of Mr. J. C. Munchenberg

The Association deeply regretted the passing of one of its oldest members, Mr. J. C. Munchenberg, who passed away early in August.

The late Mr. Munchenberg was for some years an active member of the Executive Committee, but ill-health during the past three years necessitated a curtailment of his activities in this direction.

He was one of the foremost celery growers in South Australia and was a stone fruits grower of large quantities.

His private garden of shrubs and flowers at his home at Campbelltown was one of the show places in the district, and was greatly admired by many visitors.

His popularity was borne out by the large cortege which attended his burial at St. Martin's Cemetery, Campbelltown.

BRISBANE SHOW.

Fruit Display is a Big Feature.

One of the big features at the Brisbane National Show early in August, was the fruit display.

In addition to citrus and tropical fruits, Apples were specialised, in fact the Apple display is believed to be the most comprehensive in Australia.

The South Australian Fruit Marketing Association, Inc.

Growers' Sub-Committee.

MINUTES of monthly meeting of members held at Adelaide on August 30, at 1.45 p.m.

Present: Messrs. A. O. Petersen, R. G. Hannaford, C. L. Winser, F. Rowley, R. O. Knappstein, M. G. Basey, M. J. Vickers, A. G. Strickland, N. Brookman, G. Quinn, F. B. James, W. W. Miller, R. A. Cramond, F. F. Redden, H. N. Wicks, A. Brealey, J. B. Randell, S. M. James, and the Secretary.

Mr. M. G. Basey occupied the chair.

Mr. A. G. Strickland continued his remarks recapitulating what he had said at the July meeting, and continuing he pointed out one of the disadvantages in Australia was the large proportion of the crop exported as compared with a country like U.S.A. He advocated the adoption of the "Crown" pack; this would necessitate an alteration in the present case. The "Crown" pack was adopted wholly by U.S.A.

Another important matter was the necessity for adjustment in connection with shipping to prevent gluts caused by the number of arrivals at the same time which in some cases would be followed by shortages. Some of the difficulties were due to the old slow ships in use.

Fruit Juices in Germany: This industry was absorbing a tremendous amount of fruit in Germany, where some five million bushels of Apples alone were used each year in addition to other fruits. The fruit juice industry was also large in Holland and Switzerland, and was commencing to make progress in England at the commencement of the war.

It was hoped that it would be possible to organise a voluntary observation service which would report to bureaux and enable informaton to be broadcast re Codling Moth, Thrips, etc.

Codling Moth is very prevalent in America and it was interesting to note that arsenate of lead was still the standard spray—nothing had yet been discovered that gave better results.

He had brought back from U.S.A. some seeds of the Tomato said to be able to resist "Spotted Wilt." This would be very valuable if it comes up to expectations.

At the conclusion of Mr. Strickland's address questions were asked by Mr. R. O. Knappstein re pre-cooling, which Mr. Strickland stated was the standard practice in America, and in South Africa an enormous amount of money had been spent in connection with pre-cooling operations.

Mr. M. G. Basey asked for information in regard to the suggested scheme for orchard guardians and Messrs. A. O. Petersen, N. Brookman, M. J. Vickers, and F. B. James asked questions re fumigation of fruit, soil deficiency, waxing of fruit, effect of washing on fruit.

On the motion of Mr. C. L. Winser, seconded by Mr. A. O. Petersen, a vote of thanks was moved to Mr. Strickland for his addresses at the two meetings, which had been greatly appreciated, and the vote was carried with acclamation.

September Meeting: Mr. Basey advised that Mr. N. Brookman had consented to address the September meeting, his subject being "From Loss to Profit," and in view of the fact that the Annual Conference of the S.A. Fruitgrowers' and Market Gardeners' Association would be held on Friday, September 27, it was agreed to recommend to the Executive Committee that the September meeting be held on September 20.

Executive Committee.

MINUTES of monthly meeting of members held at Adelaide on August 30, at 2.45 p.m.

Present: Messrs. A. O. Petersen, R. G. Hannaford, C. L. Winser, F. Rowley, R. O. Knappstein, M. G. Basey, M. J. Vickers, A. G. Strickland, N. Brookman, G. Quinn, F. B. James, W. W. Miller, R. A. Cramond, F. F. Redden, H. N. Wicks, A. Brealey, J. B. Randell, S. M. James, L. G. Heading, P. R. B. Searcy, G. A. W. Pope, H. M. Charlick, R. H. A. Lewis, L. J. Bishop, G. S. Queale, and the Secretary.

The President, Mr. J. B. Randell, occupied the chair.

Correspondence: Letter dated August 8, 1940, from Government Produce Department, enclosing report from Australian Fruit Committee dated London, 12th June, 1940.

Letter dated August 6, from Sydney Chamber of Commerce re letters of credit for fruit exports. This letter was referred to the special Sub-Committee appointed to deal with the question of letters of credit for eastern trade.

THE SOUTH AUSTRALIAN FRUIT MARKETING ASSOCIATION INC. SEPTEMBER MEETINGS.

The September meetings of the Association will be held at the Secretary's office, 83-4 Brookman Buildings, Grenfell-street, Adelaide, on Friday, September 20, 1940.

Growers' Sub-Committee, commencing at 1.45 p.m. Speaker, Mr. Norman Brookman. Subject, "From Loss to Profit."

Executive Committee, commencing at 2.45 p.m.

E. WHITFIELD MILLS.
Secretary.

APPLEGROWERS!

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Sulphate of Ammonia

Because:—

It supplies NITROGEN.
(All soils are deficient in available Nitrogen during the early Spring.)

It is the cheapest NITROGEN.
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It is immediately available.
(And yet is not washed away by rain water.)

2-3 lbs per tree, *no later than September*
(Costing not more than about 4 pence per tree).

THERE COULD BE NO BETTER INVESTMENT

H15/34

Deputy Chairman: On the motion of Mr. M. G. Basey it was agreed that Mr. P. R. B. Searcy be appointed Deputy Chairman of the Association.

Copies of Minutes: It was agreed that a copy of the minutes of monthly meetings be sent to the Deputy Chairman in addition to the President and the Chairman of the Growers' Sub-Committee.

Canberra Conference: Mr. G. A. W. Pope stated that two conferences had been held and the question of the Acquisition Scheme for 1941 had been before the Agricultural Council. Every effort was being made to find a basis for a scheme for the 1941 crop which would be acceptable to all interests. It was not possible to discuss the matter at present and delegates to the conference were not in position to make any statement until the scheme was finalised. The Premier of South Australia and the Minister of Agriculture were very anxious to see a satisfactory scheme in operation, and it was hoped that before Christmas a scheme would be placed before growers which would be better and more advantageous than last season. He considered there was every possibility of a satisfactory scheme being evolved.

Growers' Sub-Committee: Mr. M. G. Basey, Chairman of the Growers' Sub-Committee, reported that Mr. A. G. Strickland had continued his remarks from the July meeting and at the conclusion of his address a number of questions were answered. A vote of thanks to Mr. Strickland was carried with acclamation.

At the September meeting Mr. Norman Brookman had kindly consented to address members, his subject being "From Loss to Profit."

Mr. Basey asked growers to bring forward suggestions for future meetings, as the success of the meetings depended on growers' support, and co-operation among growers was needed to a greater extent than ever before if the industry was to keep going, and the interchange of ideas was most necessary and of definite assistance.

Date of September Meeting: As the Annual Conference of the S.A. Fruitgrowers and Market Gardeners' Association would be held on Friday, September 27, it was agreed to hold **the September meeting on Friday, September 20.**

Acquisition Scheme: Mr. G. A. W. Pope answered several questions in regard to weighbills and marketing of fruit.

VINES MAKE FOR STAKES.

Strenuous Tests Made.

That nature asserts itself even under strenuous tests has been proved by a scientist who planted a vine in a spot where there were no trees, shrubs, or stakes handy. He then drove a pole into the ground at some distance from the vine, and the vine headed for it. Before it reached the pole, he removed the pole in another direction when the vine altered its course towards the new direction. Again the pole was removed to still another direction, and the vine similarly altered its course. It took several removals before the vine gave up the unequal contest and did not again appear to show interest in the peregrinations of the pole until the removals ceased and the vine could make contact with the pole and began to climb again.

"HILLMAN" ORCHARD STRIP PLOW

Double Furrow

A sturdy, strong plow equipped with reversible discs to enable the operator to plow up to, or away from the trees. Operated by a single lever and with nothing to catch branches of trees. To facilitate the movement of the plow around the orchard the discs are movable and lift clear of the ground.

The steering arms are drop forged from the best mild steel and the main wheels are equipped with ball bearings.

Two medium horses can work this machine all day without tiring. A machine may be obtained for a trial at any time.

Further particulars apply . . .

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More Cool Storage Space Necessary for Apples and Pears

Australian Market Must be Developed Still Further

REVIEW OF THE DEVELOPMENT OF COOL STORAGE IN AUSTRALIA.

THE Australian Apple and Pear industry is facing the biggest problem of its history, due to the loss of overseas markets. The year 1940 has demonstrated the wisdom and foresight of those growers and organisations who pioneered cool storage. Credit must be given to Victoria for the lead which was given in this matter many years ago, which resulted in the establishment of cool stores throughout the fruit districts in that State. Tasmania, South Australia, New South Wales and other States followed the example of Victoria, with the result that cool stores which have been erected in the various States have been able to fulfil their part in storing Apples and Pears and thus spreading the marketing period and eliminating the unfortunate gluts which must have occurred if cool stores had not been available.

The Apple and Pear industry is an important primary industry which must be still further assisted in the existing dislocated conditions. Publicity during the present year has been the means of focusing greater public interest on Apples and Pears than in previous years. Still greater efforts can be made in this direction to develop the consumption of Apples on the local market with the possibility of substantially increasing the local consumption of Apples so that export will be a secondary consideration.

It has been proved over a number of years that the period for marketing Apples and Pears can be considerably spread per the medium of cool stores. The possibility of a larger crop during the coming season and the likelihood of less shipping space being available for the export of Apples and Pears indicates that still more cool storage space will be required if the 1941 crop is to be satisfactorily handled.

The decision as to whether cool storage should be developed by means of extension of the existing big co-operative and proprietary stores or the increase of stores on the orchard is one that requires much consideration, but it would appear that it is essential that some further developments must take place.

Cool Stores on the Orchard.

For the benefit of those growers who are interested in erecting stores on their own property, we set out hereunder the many advantages that are offering in this connection:—

A privately owned store has everything to recommend it, and it is the considered opinion of those in a position to know that an orchard producing over about 3,000 cases of fruit per annum can use a cool store to advantage.

With the gradual extension of the electric supply network, quite a number of orchards can now be connected to an electric supply, and so keep down the cost of the original installation of a refrigerating plant. Where electric current is not available, the new small H.P. crude oil engines are quite a good proposition. Whilst the initial outlay is greater for the crude oil power, the annual over-all running costs are slightly less than electricity.

With the electric drive the owner could, if he desired, instal his plant on full automatic control, but in most cases the operation of the plant is so simple that manual control is generally satisfactory. It is, however, a fact that the more even temperatures maintained by the automatic control will result in better storage conditions for the fruit.

There are many other advantages to be gained by a cool store on the orchard—for instance, space can be provided for grading and packing fruit as it is taken from the store, thus saving time of carting fruit to the large cool store and the re-grading when it is necessary to pack for market.

We illustrate on this page a typical 6,000 case fruit store which provides ample provision for packing and grading, together with convenient loading facilities. In addition, space can be provided for storing other items used in packing and preparing fruit, such as cases, wood wool and wrapping paper. Other items such as spray materials, fertilisers, etc., can also be conveniently stored.

A cool store such as that illustrated is a decided asset to a property and increases the capital value. Buzzer chips or sawdust will always take first place in the low cost and construction of orchard cool stores, and it now remains for a cheapened and yet satisfactory method of building to be worked out. Many growers have found the use of corrugated galvanised iron advantageous. Galvanised iron can be used for both external and internal walls of the rooms, using a minimum amount of timber in the framework. Low first cost of construction and minimum upkeep would result from such a store.

Where sufficient capital is not available to cover the initial cost of erecting a cool store, arrangements can be made with Messrs. R. Werner and Company Pty. Ltd., refrigerating engineers, well known as the pioneers of cool storage in Australia, for finance to be arranged on an extended and satisfactory basis.

Cool Stores in Canneries

In recent years fruit canners have realised the benefits of cool storage for use in connection with their canning activities. A number of the leading canneries, including Shepparton, Ardmona, Kyabram and the Australasian Jam Company have erected cool stores as adjuncts to their canneries and approximately 500,000 cases of fruit can be held in these various stores.

Ability to cool store fruit before canning has enabled the canners to smooth out the peak periods, cut down overtime and holiday work. Recent investigations have revealed many additional advantages to the canner by having a cool store attached to the cannery, and it is forecast that still greater use will be made of cool storage in this particular section of the fruit industry than in the past.

Cool Storage of Pears

Whilst the Sydney and Brisbane markets have been developed in recent years for the marketing of Victorian Pears, it appears that there has been a falling off in the sales of Pears in the Melbourne markets. This is partly due to the fact that the Pear loses its attraction with the approach of the Winter months, when the temperature is lower than necessary for the proper ripening of Pears. This defect is overcome when the fruit is sent to the Northern States because the warmer climate enables the Pears to ripen and the fruit to come to maturity much better than in the Southern States.

It would appear that some effort should be made to overcome this problem as far as the Melbourne markets are concerned, in order that the market on the spot can be developed to its fullest extent. There is need for experimental work in this connection, particularly in regard to the artificial ripening of Pears controlled in somewhat the same way as the ripening of Bananas. If the Pears could be ripened and brought to maturity in the Southern States, where climatic conditions are colder, there is no doubt that the Melbourne consumption of Pears would be considerably increased during the Winter months.

Elimination of Soft Scald or Breakdown in Cool Storage

It is reported that large losses are experienced each year by growers on account of their Jonathans developing the disorders Soft Scald or Breakdown in cool storage. It has been found by investigation that both of these disorders may be almost entirely eliminated by paying due regard to picking, maturity and storage temperature. If picked overmature, in an effort to gain extra red blush on the Apple, the Jonathan is subject to early breakdown in storage. For long storage the Jonathan should be picked when the ground color is green-yellow, irrespective of the amount of red blush then developed. Fruit should then be stored at 36 deg. until the end of April, 34 degrees until the end of May, and 32 degrees thereafter. Cool stores which adopted these recommendations last year have reported an almost complete absence of Scald. Varieties not subject to Soft Scald may be stored at 32 degrees continuously, for it is well known that the longest storage life is obtained by storing at the lowest possible temperature.

The foregoing information directs attention to the advantages to be obtained by picking at the correct time and storing at the correct temperature. This not only applies to Apples, but also to Pears, Plums, Peaches and other fruits.

The object of this article is to bring before growers throughout the Commonwealth the important part that cool storage can play in the general marketing scheme of fruit, and, as in other matters, close attention to details and recommendations will bring the best results for all concerned.

The firm of R. Werner and Co. Pty. Ltd., of Burnley-street, Richmond, Victoria, must be joined up with those fruitgrowers who pioneered cool storage in Victoria. Some thirty years ago this firm commenced operations in a small way and their advice and guidance was sought by pioneer fruitgrowers and readily given.

At the present time it is estimated that there are over 60 cool stores throughout the Commonwealth with a capacity of over 1½ million cases which are operated by the Werner refrigerating plants. In this respect, Messrs. Werners place the advice of their engineers and technical advisers at the service of fruitgrowers and they are always ready to discuss cool storage problems and submit estimates and other details concerning the erection and equipment of a cool store.

Owing to the cancellation of the Royal Melbourne Show, Messrs. Werner and Company will not have their usual stand this year, but growers are cordially invited to call and discuss their problems either at their main works at 54-86 Burnley-street, Richmond, or at their city showroom at 610 Little Collins-street, Melbourne.

Growers in the other States may obtain information through: West Aust., Atkins (W.A.) Ltd., 894 Hay-street, Perth; South Aust., W. J. White, 56 Franklin-street, Adelaide; N.S.W., R. J. Lindsay, 99 Kippax-street, Sydney, Stuart Walker, 174 Clarence-street, Sydney; Tasmania, Noyes Bros., Hobart and Launceston; Queensland, Garoche Pty. Ltd., Wooloongabba, Brisbane.

FINE GESTURE BY SYDNEY BOYS.

War Funds Assisted by Apple Purchases.

Among the valued activities of the N.S.W. Publicity Committee is the distribution of Apples to schools.

When it came to the turn of the 800 boys at the Sydney Technical College, Ultimo, to receive Apples, the boys thanked the Committee for the gift and then said they would buy the Apples and give the money for war purposes. The Apples were supplied on June 28. A representative of the Publicity Committee had an enthusiastic reception when telling his story about Apples and health. Each boy purchased a few Apples. Other activities to raise funds were organised, the result being that over £300 was raised as a straight out gift to the Government for war purposes.

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Previous experience had convinced me that to be really efficient a grubbing machine should have ample power and ropes that will meet the heavy demands required of them. I found that shovel and axe work is very costly either by itself or in conjunction with a machine. The machine that offered these features with a host of others, was **THE "MONKEY" GRUBBER.**

It gave me the power of 260 pairs of hands in a simple and compact form; the lever is short, so that I am able to stand firm-footed and get the full stroke. There are two speeds in the machine, as well as an automatic release that allows me to let off a strain, or as the machine will work in any position, it comes in for all jobs that would require a chain block. It is taken to the job on a pair of wheels like a barn truck, and is rigged for work in a few minutes. The ropes are in lengths that I find easy to handle, and each one is fitted with hook and loop couplings, so simple and absolutely IT for effectiveness. The makers have included a sturdy snatch block with a novel method of securing to the ropes, and also a fine type of firm gripping rope shortener. The latter makes it very easy to accommodate the lengths of rope to the tree or stump being pulled, and is quickly released from the rope. The combination of so many time and labor saving features makes the "Monkey" Grubber a superior grubbing outfit.

REMEMBER FOR YOUR GRUBBING THERE'S ONLY

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MONKEY GRUBBER

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REX ROBINSON, 83 Gipps Street, Brisbane.

Leading Stores and Merchants, South and West Australia.

TREWHELLA BROS. Pty. Ltd. Trentham, Vic.

BY-PRODUCTS OF CITRUS.

Palestine Preparing.

IT IS REPORTED that in view of the tremendous development of citrus production in Palestine during the past few years and the possibility of war conditions restricting overseas export, several suggestions have been put forward for the use of citrus fruits in by-product form. Two such are to ferment the juice and distil from it either commercial alcohol or acetone, which is valuable in the manufacture of explosives and secondly, to dry the citrus pulp for use as stock food.

CANNING DRIED PEAS.

Out-of-Season Canning.

If first experiments are proved satisfactory, a new form of processing Peas will be created in England, says "Fruit, Flower, and Vegetables Trades Journal." By the method, dried Peas grown abroad can be canned and may be used like fresh canned Peas. The canning season can then be spread over the full year instead of only during the fresh Pea season. Certain varieties will, of course, be most suitable but the English cannery trying out the new method desires to use English-grown varieties instead of foreign dried Peas, and hopes that growers will sow enough suitable Peas to make the effort worth further experimenting with.

(Continued from page 12.)

filled with sand which effectively seals the cuts and allows the grafts to "take" and the wound to callous free from the possibility of the introduction of fungus disease.

(2) The other method is to make a soil mixture to completely cover the stump and the grafts: this mixture is made of 60 per cent. clay, 25 per cent. soil and 15 per cent. of decayed cow or horse manure, kneeding it to secure even mixing. One useful way to accomplish this is to place the mixture in a hessian bag on the ground, treading it with the feet and turning the bag several times during the process.

The mixture should then be applied completely over the stump and grafts, making a ball and allowing the clayey mixture to set.

Care should be exercised in removing the sealing mixture so as not to disturb the scions: this removing should be done when the scions show some growth (from one to two months): all cuts should then be painted with a good coat of lead paint mixed with linseed oil only (no turpentine or spirits).

The painting is necessary to prevent to entry of Polystictus versicolor.

New South Wales

Fruitgrowers' Federation of N.S.W.

MEETING OF BOARD — PUBLICITY — PETROL RATIONING — ASSISTANCE FOR SPRAYING — ROYAL COMMISSION.

THE Board of Directors of the Fruitgrowers' Federation of N.S.W. met on August 15, when many matters of interest to the industry were discussed, amongst the subjects were:—

Present: General J. Heane (in the chair), Messrs. A. E. Herring (Batlow), S. A. Stanford (Orange), A. A. Wilkinson (Uralla), A. S. Brown (Ourimbah), H. A. Stevenson (Murwillumbah), A. J. Taylor (Singleton), F. B. Mackenzie (Kurrajong), P. W. James (Dural), L. T. Pearce ("Fruit Culture and Small Farming"), and E. E. Herrod (Secretary).

Publicity: In relation to publicity it was reported that the "Eat More Fruit" Campaign Committee had just completed distribution amongst retailers of 8,000 citrus recipe books and also posters and window stickers. The recipe books and colored matter had been very well received by retailers, and it was decided to recommend to the "Eat More Fruit" Campaign Committee that an additional quantity of recipe books should be printed and distributed upon application to those persons amongst the public who desired them. The combined poster issued by the Department of Public Health and demonstrating the "Five Foundation Foods" was on display and was favorably commented upon. This poster is being regarded as of educational importance rather than of publicity value.

In relation to advertising for the year 1940-41, Mr. Pearce reported that he had received verbal advice that the State Government was subscribing £750 for publicity for this year.

Department of Transport and Tramways: The resolution adopted by annual general conference was as follows: "That all primary producers, using only one motor vehicle, be permitted to register such vehicle at the 'Primary producers' registration rate." The reply received from the Department indicated that the Motor Vehicles (Taxation) Act, 1924, provided for reduced rates of tax in respect of **motor lorries** owned by primary producers and used for the transportation of their primary products, but there is no provision in that Act which permits of a similar commission being granted in respect of other types of motor vehicles. Further concessions for passenger vehicles therefore were not possible.

Fertilizer Subsidy: The Annual General Conference passed a resolution requesting the Federal Government to continue the Fertilizer Bounty, but the Department of Commerce replied that in view of the heavy war expenditure which must necessarily be incurred by the Government, it was regretted that the fertilizer subsidy could not be continued for the 1940-41 season.

Rationing of Petrol and Liquid Fuel: Conference resolved that any rationing scheme that the Government might formulate in relation to petrol and liquid fuel should provide for adequate supplies of petrol being made available to producers to enable the continuance of rural production.

The Commonwealth Liquid Fuel Control Board replied to the effect that provision is being made for rural production to be carried on without undue inconvenience. In considering this reply the Board of the Federation decided to closely watch the position and to see that the interests of fruit growers were not unduly hampered.

Spray Materials as Assistance to Growers: Conference resolved that representations be made to the Government that where growers are unable to obtain spray material such necessities be supplied to enable them to carry on essential operations. The Minister for Agriculture replied that supplies were usually available from Co-operative Societies, firms supplying spray materials or financial institutions, but that consideration was being given by the Rural Bank to the providing of assistance for the purchase of spray materials in cases where growers

"Apple Week" in Sydney. One of the many full window displays. (Mick Simmens, George Street.)

City Fruit Markets Sydney N.S.W.

Licensed Farm Produce Agent

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Licensed Farm Produce Agents. (No. 2253)

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Shipping Numbers on Application.

N&A

BRANCH: 6 CITY MARKETS, SYDNEY.
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GROWERS!—Consign your Fruit to—

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Postal Address: Box 36, Haymarket P.O., Sydney.
Established 1882.
SHIPPING NO. 19. 88 VIC. & TAS.
Stencils, Advice Notes, etc., on Application.

It is estimated that in a normal season about 7,000,000 packages of fruit pass through the Sydney Market annually.

FRUITGROWERS!
For Satisfactory Results, Send Your Fruit to

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Licensed Farm Produce Agents.
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Our Motto—Quick Sales and Prompt Settlements.
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were unable to finance the purchase. It was also reported to the Board that the office of the Federation had been verbally advised that certain cases were already being investigated by the Lands Department with the purpose of recommending assistance, should it be justified, through the Rural Bank.

Railway Freight and Transport Services: A representative of the Secretary for Railways had attended conference and clearly explained in relation to freight on fruit from Inverell that truck load rates were available for fruit in that district if the required conditions were complied with.

In relation to interruptions to traffic, owing to the recent strike, it had been explained that curtailment of traffic had been essential, but every consideration had been given to the transport of essential requirements. In considering this reply, the Board expressed its satisfaction with the explanations made.

Royal Commission Recommendations: Under letter dated August 7, the Minister for Agriculture advised the decisions which had been approved by Cabinet in connection with the recommendations in the report of the Royal Commission on the Fruit Industry of N.S.W. A precis of the decisions of Cabinet has already been published, and a more detailed report will be published in the next issue of "Fruit Culture."

Apple and Pear Acquisition Scheme: Mr. H. V. Smith, New South Wales producer representative on the Australian Apple and Pear Board, attended the meeting of the Board by invitation, and explained the recent negotiations between the various States and the Federal Cabinet, in relation to the acquisition of Apples and Pears during 1940-41.

A meeting of the executive of the N.S.W. Apple and Pear Growers' Association also was held and the report submitted by Mr. H. V. Smith was considered, the following resolutions and decisions being eventually agreed to by the Board of the Federation: "That the Board recommends to the Conference to be convened by the Minister for Agriculture that, if an Acquisition Scheme is enforced, the basis of agreement be that secured by the representatives at Canberra Conference."

In regard to the vacancy upon the N.S.W. Acquisition Committee caused by the resignation of Colonel Herrod, it was decided to recommend the Minister for Commerce to accept two grower representatives and Mr. W. J. I. Nancarrow and Mr. W. C. Dickinson accordingly were recommended in that order.

It was also decided to recommend the Marketing Committee of the N.S.W. Apple and Pear Acquisition Committee to place Mr. L. T. Pearce upon the Publicity Committee in the vacancy caused through Colonel Herrod's resignation.

Regarding the constitution of the N.S.W. Apple and Pear Acquisition Committee, it was decided to request that representation should be on the lines recommended by the annual general conference. This was as follows:—"That this conference recommends to the Minister for Commerce that the State Committee be comprised of grower representatives only, with a Government representative, and that services of agents be co-opted where necessary, but without voting power."

Cable Address: DAVIS, MELBOURNE. Code: "ABC," 4th and 5th Editions. Box, G.P.O. 1488.

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Australia looks to you to produce and sell good fruit, but to **PRODUCE GOOD FRUIT** and have it badly sold is a reflection on your business ability. To sell well is as important as to produce well. The greatest combination that can exist beneficially is that between a painstaking fruitgrower and a painstaking salesman.

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26, 36 Wholesale Fruit Market, Melbourne. And at VICTORIA MARKETS.
COUNTRY AND INTERSTATE ORDER TRADE SUPPLIED.
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Regular Supplies of Quality Fruit well Packed and Graded will realize the Best Prices.

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Cheques Sent Promptly. F 6532.

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Growers can be assured of receiving the very best service and prompt returns.

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No. 44 WHOLESALE FRUIT MARKET, MELBOURNE.
Growers in all States are invited to send consignments. Highest market rates and prompt settlements.
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"Growers' Interests further protected by our Fidelity Bonds."

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Established 1893.
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14 WHOLESALE FRUIT MARKET, MELBOURNE.
Consignments Solicited from all States.
Growers Will Receive Top Market Value and Prompt Returns.
Fidelity Bond Guarantee for £1,000
Pea and Bean Stands,
11 and 12 Victoria Market.
Reference—E.S. & A. Bank, Elizabeth St. Branch, Melbourne.
Phone: F 5035.

Betta Pack Fruit Storage Co. Pty. Ltd.
436 Queen St., Melbourne.
The most modern cool storage in Victoria. Right opposite Victoria Fruit Market.
Fruit Ripened, Colored, Packed and Stored. Gluts Avoided.
Fruitgrowers call or write.
Telephone F 3093.

Market Notes and Prices

NEW SOUTH WALES.

Report by Chamber of Fruit and Vegetable Industries.

War Funds Supported.

Improvements to Markets Urgently Needed.

IN a report just to hand from the N.S.W. Chamber of Fruit and Vegetable Industries, the Secretary, Mr. P. S. Macdermott, states as follows:—

The annual general meeting of the N.S.W. Chamber of Fruit and Vegetable Industries was held on Wednesday, July 31, and was very largely attended.

The Chamber membership has grown considerably during the past twelve months, as can be seen from the advertisement in the "Fruit World."

Dissatisfaction was expressed by the Trade to the Cabinet decisions in respect of the recommendations of the Royal Commission held on the Fruit Industry.

During the sitting of the Royal Commission very full evidence was heard and exhaustive enquiries were made by the Royal Commissioner.

Several recommendations were made by him for improvement in the conditions under which agents in the Sydney Market are working, but not one of those recommendations was agreed to by Cabinet.

The members at the annual meeting instructed the Council of the Chamber to take the matter up with the Government and press for the carrying out of the recommendations made.

At a meeting of the Council of the Chamber held on August 14, the following officers were elected for the ensuing year:—

President: W. Musgrove.
Deputy President: E. Cooke.
Vice-Presidents: C. R. Walker and J. J. Mason.
Hon. Treasurer: J. Holmes.
Co-opted Member of the Executive: L. J. Jenkins.

The Chamber was responsible for organising a War Fund which is known as the "Market Industries War Fund," and which has received the support of every section operating in the City Municipal Markets embracing fruit, vegetable, fish, poultry, carriers, cold stores, country order merchants, and all employees connected with the above sections.

The response to the appeal has really been magnificent, and already by straightout donations and by various activities organised by a number of Committees, approximately £6,000 has been raised towards the cost of a bomber to be donated to the Federal Government.

The first cheque for £1,500 was handed to the Federal Treasurer recently, and a further cheque will be handed over shortly.

The Committee is erecting a stall in Martin-place on land generously offered by the City Council and where fruit and vegetables will be sold during the duration of the war, all profit of which will go to the fund.

The Chamber has continued its active support towards the Publicity Campaign to the Australian Apple and Pear Board and members continue their weekly visits to the schools for the purpose of addressing scholars and distributing Apples.

Sydney: The following market notes for week ending August 28 were issued by the N.S.W. State Marketing Bureau.

Sales of Apples and Pears generally were quiet. Inquiry was mainly for good quality, colored lines and values showed little change. A quantity of overmatured and small fruit was difficult to clear.

The limited stocks of Pears consisted mostly of Packham's Triumph and rates for choice packs were firm.

Navel Oranges from the Murrumbidgee Irrigation Area and coastal centres were well supplied. Demand for selected counts to retail at 1/- to 1/6 doz. was fairly good. Some South Australian packs also were available and realised from 12/- to 16/- bush.

Lemons of suitable counts and quality sold up to 10/- per bushel.

There was a steady inquiry for Grapefruit and some "specials" from inland orchards realised very satisfactory prices.

A falling off in supplies of Passionfruit was noticeable and values of choice packs advanced, up to 14/- half-case being paid.

Consignments of Pineapples continued to be fairly large, and clearances were somewhat slow; prices, however, remained fairly steady at from 6/- to 8/-, with specials to 9/- tropical case.

Queensland Strawberries continued to arrive on the market but a considerable proportion of this week's consignments opened up very unsatisfactorily.

Papaws of quality cleared readily at slightly higher prices, but unmatured lots were difficult to sell.

Current quotations are:—

Apples: Granny Smith, 4/6 to 14/-; Del., 6/- to 18/-, specials to 20/-; Del. (Tas.) and G. Smith (Tas.), 4/- to 9/-; French Crab, 4/- to 7/-; Sturmer (N.S.W.), 4/- to 6/6; Crofton, 4/6 to 12/-; G. Smith, 11/- to 13/-; Jon. (Tas. and Vic.), and Scarlet Pearmain, 3/- to 9/-; Cleo., 4/- to 8/6; Demo. (Tas.), 4/- to 8/6 case.

Pears: Packham's Triumph, 4/- to 16/- case.

Bananas: Nines and Eights, 18/- to 20/- (few higher); Sevens, 15/- to 18/-; Sixes, 12/- to 16/- (ripe and inferior lots lower).

Papaws: 8/- to 14/- (few higher).

Pineapples: 6/- to 8/- (few 9/-) tropical case.

Oranges: Navel, Coastal, 4/- to 9/-; Irrigation, 4/- to 8/-; Sth. Aust., 12/- to 14/- (specials higher); Common, 3/- to 5/- case.

Lemons: Coastal, 3/- to 10/-.

Emperor Mandarins: 2/- to 10/-.

Grapefruit: Coastal, 6/- to 8/-; specials, to 10/-; inland, 6/- to 10/- (special brands higher) case.

Passionfruit: Choice, 10/- to 12/-; specials, to 14/-; other descriptions, 6/- to 9/- half-case.

Strawberries: Local, 9/- to 15/- dozen punnets; Queensland, 2/- to 4/- tray, 9/- to 12/- (few higher) dozen packets.

APPLES AND PEARS TO SYDNEY.

Figures for Three Years.

The following quantities of Apples and Pears arriving on the Sydney market during the years 1937 to 1939 are shown below for comparison. The figures (made up to June 30) express the quantities in bushels and are released by the N.S.W. State Marketing Bureau.

	1937.		1938.		1939.	
	Apples.	Pears.	Apples.	Pears.	Apples.	Pears.
Tas.	1,022,869	191,788	1,149,929	215,612	1,176,701	220,631
Victoria—						
Rail	63,006	107,716	33,091	68,143	21,018	78,596
Sea	28,607	57,214	16,419	32,838	10,493	20,986
	91,613	164,930	49,510	100,981	31,511	99,582

Leading Agents in the
BRISBANE FRUIT MARKETS

Highest Prices. **A. S. BARR** Prompt Returns.
FRUIT EXCHANGE, BRISBANE, QUEENSLAND.
Wholesale Fruit Merchant and Growers' Agent.
A Trial Solicited. Returns Speak for Themselves. Shipping No. 19.
Established 1888. Registered Telegraphic Address: "Barr, Brisbane."

W. Arkell & Sons Estab. 1892
BRISBANE, B.12. GROWERS' AGENTS.
Shipping No. 12
Bankers: National Bank of Australasia, George St., Brisbane.

Do not run any Financial Risk with your Fruit but Consign it to
HEDLEY GEEVES PTY. LIMITED
Telegraphic Address: "Apples, Brisbane." (Hedley Geeves, Managing Director) Registered Shipping No. 6.
FRUIT EXCHANGE—BRISBANE
SELECTED AGENTS FOR: Phones: Office B 6218. Residence J 3445. Established 1911.
Victoria: Harcourt Fruitgrowers' Progress Assn. Ltd. Harcourt Fruit Supply Co. Ltd. Victorian Central Citrus Assn. Ltd.
Tasmania: State Fruit Advisory Board.
New South Wales: Griffith Producers' Co-op. Co. Ltd. Batlow Packing House Co-op. Soc. Ltd.

SOUTH AUSTRALIA.

Adelaide (2/9/40): The following prices are supplied by the S.A. Fruitgrowers' and Market Gardeners' Association. Inc.

Vegetables: Beans (French), 5/-, 7/- doz. lbs.; Beetroot, 1/6 doz.; Brussels Sprouts, 3/- doz. lbs.; Cabbages, 2/- to 4/- doz.; Carrots, 1/6 doz. bchs.; Cauliflowers, 4/- doz.; Celery, 3/- doz. hds.; Leeks, 2/- doz.; Lettuces, 1/-, 1/6 doz.; Onions, 5/- cwt.; Parsnips, 2/- doz. bchs.; Peas, 6/-, 6/6 bush.; Potatoes, 13/-, 14/- cwt.; Pumpkins, 8/- cwt.; Rhubarb, 1/-, 1/6 doz. lbs.; Tomatoes, 12/-, 13/- ½ case; Trombones, 11/-, 12/- cwt.; Turnips, 1/6 doz. bchs.; Swedes, 2/6 doz. bchs.; Triambles, 8/- cwt.

Fruit: Oranges, Mandarin, 8/-, 10/-; Navel, 5/-, 6/-; Grapefruit, 8/-, 10/-. Lemons, 7/-. Bananas, 22/-, 24/- crate. Pineapples, 11/-, 13/- crate. Passionfruit, 20/- ½ case.

Potatoes had a stronger demand on Monday's markets, selling at 13/-, 14/- cwt., but Onions were slow at 5/- cwt. Peas were also firmer at 6/- to 6/6 bush. Trombones were quoted up to 12/- cwt., with Pumpkins and Triambles at 8/- cwt. Rhubarb was lowered to 1/- doz. lbs., with 1/6 doz. lbs. for Cherry Rhubarb. Bunch and green vegetables were unchanged in price. Fruit quotes were unaltered. Quotes are for F.A.Q.

GROWERS—Consign Your Fruit and Vegetables to Agents who are Members of N.S.W. Chamber of Fruit and Vegetable Industries

LIST OF MEMBERS.

Fruit Section.

Allen, Stan.
Associated Growers' Selling Agency.
Banana Growers' Distributors.
Billett, E. J.
Black & Son.
Bragg, R.
Bromley, W. E.
Brooks, P.
Bryant, J. W.
Bryant, L. J.
Buhl, F., & Son.
Buhl & Hacking.
Cave, R.
Chew, P. W., & Co.
C.O.D.
Chilton, F.
Clutton, E. J.
Cooper, A. J., Pty. Ltd.
Dundon, F. C.
Ewen & Sons.
Express Fruit Service.
Gibbs, C., & Son.
Gosford Bulk Loading.
Greentree, H. J.
Hawke, J.
Hay Bros.
Hie Lee & Co. Ltd.
Hill, F. W.
Holmes, J., Ltd.
Hopkins & Lipscombe.
Hop Lee & Co. Ltd.
Isaacs & Sons.
Jenkins & Londregan.
Jenkins, John.
Jolly, J. N.
Jurd, W. A.
Kellaway, C. G., & Sons.
Kennett, F. C.
Kirkwood, J. W.
Lockart, H. C.
Locke, L. T.
Martin & Co.
Mason, A., & Co.
Mason, J. J.
Mitchell & Hall.
Mitchell & Lawless.
Moore & Lloyd.
Moss, J., & Sons
Musgrove, W., & Son.
McKellar & Devlin.
N. & A. Fruit & Produce Co.
Palmissano Bros.
Paterson & Co. Ltd.
Picone, F.
Producers' Co-op. Scty. Ltd.
Quigley, E.
Reedy Bros.
Rogers, F. H. G.
Roughley, Oliver.
Salmon, F. J., & Co. Ltd.
Salter Bros.
Sandrin, A.
Scarmuzzi, C.
Schuster, A. E.
Silk Bros.
Sinclair, W. J.
Slater, J., Pty. Ltd.
Southcott, W. H.
Spurway, E. A.
Stanton, E. T.
Stassi, G.
Stevens, F. G., & Sons.
Sun Lee & Co.
Sunnyside Orchards Pty. Ltd.
Terrey, A.
Terrey, J.
Trathen & Hall.
Turnbull, D. C.
Valentine, A. B.
Valentine, R., & Son.
Vince, L. L.
Waddell, A. W.
Walker, A. H., & Son.
Walters, M., & Co.
Ward & Felton.
Watkins & Evans.
Wilson, Herbert.
Wing Chong & Co. Ltd.
Wing On & Co. Ltd.
Wing Sang & Co.
Wing Tiy & Co.
Woodward, H. P.
Yick, S., & Co.
Yocksui Bros.

Vegetable Section.

B.P.B. & Co.
Boot & Carter.
Brailey, H. J.
Carroll, C. J.
Chew, P. W., & Co.
Clarke, H. M.
Clarke & Son.
Clarke, R. G.
Clayton, J., & Son.
Clements & Kemp.
C.O.D.
Comino Bros.
Cooke, E.
Cooper, C.
Curtis, W. J.
Dening Bros.
Dickson, H.
Dunstan & Norris.
Evans, E.
Farley, J.
Fong, Sue & Co.
Gray, G.
Greenberg, S. & M.
Greentree, C. C. & Son.
Hanigan & Drane.
Hawke, J.
Hie Lee & Co. Ltd.
Isaacs & Sons
Johnston & Tebbutt.
Leedow, A.
Locke, L. T.
Messent & Gauld.
Mitchell & Galvin.
Mitchell, T. S.
Molesworth, G. H.
Montgomery & Son
Moss, A.
Moss, J., & Son.
Parker, E. W., & Son.
Paull, W. J.
Peters, S. A.
Producers' Co-op. Scty. Ltd.
Reedy Bros.
Rhodes, S. J.
Salter Bros.
Sandrin, A.
Silk Bros.
Small, E. A.
Southcott, W. H.
Stevens, F. G., & Sons.
Sun Lee & Co.
Terrill, R. A.
Thompson & Smith.
Valentine, A. B.
Watson, R. B.
Wing Bros.
Wing On & Co. Ltd.
Wing Sang & Co.
Wing Tiy & Co.
Woods, W. O.
Yick, S. & Co.
Yocksui Bros.

P. S. MACDERMOTT, General Secretary,
215a Thomas St., Haymarket, Sydney.

VICTORIA.

Melbourne (2/9/40): Wholesale Fruit Merchants' Association prices:—Per Case: Apples, 6/-, 10/-, choice higher; cooking, 5/-, 7/-, choice higher. Bananas, 12/-, 20/- (few higher) double case. Grapefruit, 5/-, 10/-, selected higher. Lemons, 8/-, 12/-, selected higher. Mandarins, 3/-, 10/-, some higher. Oranges, Navel, 4/-, 8/6, selected higher. Passion fruit, best, interstate, 12/-, 16/-; local, 8/-, 11/- half case. Pineapples, 7/-, 9/- double case. Pears, 6/-, 10/-. Tomatoes, West Aust., 6/-, 9/- half case, ripe higher; do., South Aust., to 12/-, specials higher; Q'land, 5/-, 8/-. Celery, Sth. Aust., 5/-, 9/-.

Citrus Fruits.

The Melbourne market manager of the Federal Citrus Council of Australia reports: — The citrus market was generally unchanged. The cold weather checked sales of medium grade Lemons and Grapefruit. Small size Mandarins are becoming increasingly difficult of sale. Sales:—Navels: Average standards, 84-182, 4/6 to 5/-, a few 5/6; 200-270, 4/- to 4/6 (below average standard to 4/6 best counts); good standards, including "Vicorange," 5/- to 6/-, few 6/6; selected standard, 96-168, 6/6 to 7/6 (few 8/-), smaller 5/- to 6/6; specially selected wrapped, 7/- to 9/-; a few premium lines higher. Lemons: Average standard, 160-180, 9/-; 203-248, 10/- to 11/-; 270-330, 9/-; 350-400, to 8/-; good standards, 10/- to 12/-; a few 13/-; specially selected, to 14/-, best counts. Grapefruit: Average standards, 53-84, 5/- to 8/-; 96-112, 6/- to 7/-; selected standards, 7/- to 9/-; a few, 10/-; specially selected, wrapped, 10/- to 11/-; a few 12/-. Mandarins: Average standard Emperors, 192-248, 10/- to 11/-; 270-330, 7/- to 8/-; 400, 3/6 to 5/-; 450-500 at best offer (Scarlets and similar types lower), good standards, to 12/-, best counts; 350-400, 4/- to 6/-; smaller at best offer; selected red varieties, to 13/- and 14/-, best counts. Poormans and Sevilles, good standards, 53-75, 9/- to 12/-; a few 13/-; 84-96, 9/- to 10/-; 112-126, 8/-; selected standard smooth skinned Sevilles, 14/-, best counts; few higher.

SIXTY-POUND SULTANA BOXES.

Saving of Freight Space.

Approximately 7 per cent. shipping space will be saved by the Commonwealth approving of the export of Sultanas in 60 lb. boxes, says the "S.A. Storekeepers' Journal." In war time this will be an advantage where shipping space has to be conserved. Further saving will be made in wire, nails, paper and labor in packing 37 boxes to the ton (measurement) as against 40 boxes as previously. Currants and Lexias will remain at 56.

A further saving will be made by packing Apricots in 28 lb. boxes with 35 lb. fruit as the fuller boxes will carry better.

Drill Sergeant (impatiently): "Didn't you hear 'About turn'?"
New Recruit: "No. Wot about 'im?"

The PRINCIPAL Fruit Merchants and Exporters of SOUTH AUSTRALIA

SILBERT, SHARP & BISHOP LTD.

FRUIT MERCHANTS — EXPORTERS — COMMISSION SALESMEN
BANANA IMPORTERS AND RIPENERS

283 Rundle Street — Fruit Exchange — Adelaide
also at Port Pirie and Port Adelaide

Distributors
All Gardeners' Requirements.
Implements, Manures, Sprays.
Seedsmen & Potato Merchants.

Cables & Telegrams: SILBTSHARP, Adelaide.
TELEPHONES: 5754-55.

When Consigning to ADELAIDE MARKET, try—

Earle S. Caldicott
FRESH FRUIT SPECIALIST
Interstate Representative, Exporter & Commission Agent
Communicate: Box 970 H, G.P.O., Adelaide.
Phone: C 2882. After Hours, L 5395.
Telegrams: "Caldicotts," Adelaide. Reg.

Growers! Consign your Fruit To

H. C. Austin
Wholesale Fruit and Produce Merchant, General Exporter, Commission Agent, Shipping Providor.
Specialty Overseas Export All Countries.
New Market, Union St., Adelaide
Phone 0 746. G.P.O. Box 722. Telegrams: Austin Fruit.

Producers' Co-operative Distributing Society Ltd.

Are now paying a Bonus of 15% on all Commissions charged to regular clients of the Fruit & Vegetable Section for year ending Sept., 1938

Send Your Consignments TO US

MELBOURNE & SYDNEY.

Soft Woods in Australia

Enormous Quantities Imported

Growing New Forests

WITH COMMENDABLE forethought, certain private enterprises and Government departments have for many years past been preparing to supply soft woods so long lacking in Australia's natural forests, and it is only now that some measure of success has been revealed and soft wood supplies are being cut in a comparatively small way as compared with what is required to meet local needs.

When one realises that, taking 1939 figures as an average, Australia imported upwards of 260,000,000 super feet of various soft woods from abroad, representing a value of £675,000, and not including timber for building purposes, it can be seen how important the development of soft wood forests can be to a country having such natural forests upon which to draw.

Compared with these enormous quantities it can be further realised that it will take Australia many decades to grow anything like the tremendous acreage of planted soft wood trees that will be required to supply our needs even at the present quantities used, but that if and when local soft wood is more easily obtainable, the use of it will be greatly increased.

As was pointed out in our last issue, unlike mineral sources of wealth that cannot be replaced once it has been mined and converted to use, timber can be grown and is an eternal natural source of value to any country.

Where Softwoods Come From.

Taking 1939 statistical records of imports of softwoods into Australia as a guide, the following table of quantities and values are shown in super feet and commercial value. The origin of only the largest imports are stated.

Undressed Timber for Case Making.

		Worth.
Canada . .	85,596,788	£278,650
Sweden . .	540,981	4,056
For Cases, Cut to Size (Shooks), dressed or partly dressed.		
Canada . .	8,887,964	£78,993
Finland .	340,352	2,945
Norway .	376,225	3,412
Sweden .	1,520,658	16,965
U.S.A. . . .	2,241,558	19,134
Ditto, Undressed.		
All Countries	372,925	£3,164
Logs, Not Sawn. Douglas Fir.		
Canada . .	149,350,031	£443,463
Redwood, Small Sizes, 8 x 2 or equivalent.		
Canada . .	6,829	£106
U.S.A. . .	3,924,928	55,125
Less than 8 x 2 (Red Cedar) .	255,956	3,137
Less than 7 x 2½ (Doug. Fir) . .	4,504,832	21,858

What States Use.

Taking undressed softwoods imported for case making as per the first table shown above, South Australia uses most. By States, their imports in 1939, in super feet, were: S.A. 8,435,174; N.S.W. 43,107,718; Vic. 31,903,387; Qld. 1,704,670, W.A. 1,489,095, and Tas. 497,725, or over 87 million super ft. per year in this one classification.

From such actual figures of imports therefore, it will be seen that it will be an impossibility for Australia to supply her present requirements, even if the now-growing planted forests were multiplied many times over.

What Has Been Done.

Government pine plantations have already been established in most States, but the most popular variety, Pinus Insignis requires a rainfall of about 30 inches, and well-drained land containing soil of a sandy loamy nature to make the forest a commercial proposition. Certain parts of Australia, particularly W.A., S.A. and parts of Victoria, are eminently suitable for pines, and it is reported that Insignis grows approximately three times faster here than in colder climates, therefore commercial cutting maturity arrives at an age advantageous to this country.

We propose to record in this article the activities of one Australian private enterprise that is already cutting its first yield from its own plantation and plans some interesting future developments.

The Forestry Pulp and Paper Company.

Away back in 1927, the Forestry Pulp and Paper Co. of Australia Ltd. commenced operations in Geelong, and secured suitable country at Dartmoor, Vic., just inside the border into South Australia, where now some 10,000 acres are planted or being planted. In 1929, recognising the growing potentiality of softwood forests to meet local requirements, another large area of suitable land was acquired in Tasmania, where 3,500 acres are already planted. Shortly afterwards, another 5,000 acres was acquired at South Bruny Island, Tas., and planting has been consistently carried on for several years. On the Mornington Peninsula, near Rosebud, Victoria, a property of 400 acres has been purchased, and planting is proceeding. When ready for cutting, this small forest will enable a limited local supply for Melbourne.

Planting Methods.

The company plants 680 trees to the acre, which, in effect, ensures a comparatively straight barrel on the trees, and when the thinning out is done, the growth of the remaining trees is accelerated. A little mathematical exercise can readily illustrate the enormous number of trees already nearing cutting maturity in the various plantations. At 6 to 7 years of growth the trees are pruned of their lower branches, giving the trees more vigorous growth and also a knotless trunk of timber, when matured, that is in uncalculable demand in Australia.

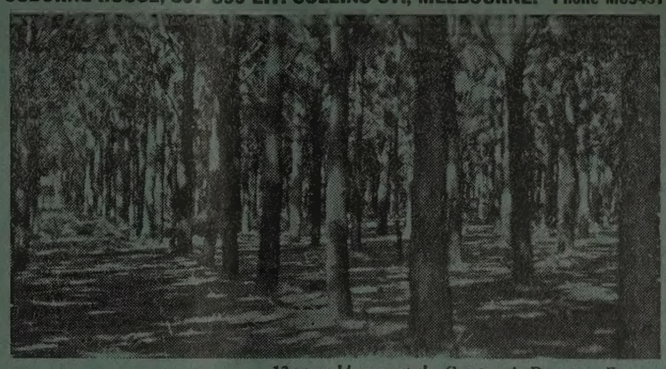
Cutting Begins at 20 Years.

Sylvicultural thinning is done at about 12 to 14 years to allow the trees left in to develop better. It is a fact that these respond to less crowded conditions and develop more quickly than before such thinning, similarly to the advantage of thinning out flowers and other small plants. Apart from the thinning process, the forest is anticipated to be ready to cut for commercial timber at from 20 to 25 years.

War and Development.

As with many other industries that have sprung into existence or have been expanded owing to war conditions restricting the importation of certain goods from foreign countries, the necessity fr increasingly large supplies of softwoods is being demonstrated, and although the company was cutting from its Dartmoor forest before the war commenced and had already received a satisfactory welcome on the Australian market, it has since found that it cannot meet the demands for even the comparatively small size of timber derived from thinning. This augers well for the potential market that will be available in later years.

The Forestry Pulp & Paper Company of Australia Limited
OSBORNE HOUSE, 397-399 LIT. COLLINS ST., MELBOURNE. Phone MU3437



12-year-old trees at the Company's Dartmoor Estates.

KEEP YOUR MONEY IN AUSTRALIA

SPECIAL NOTICE TO FRUITGROWERS

All Members under Fidelity Bond

In response to numerous requests from growers for information as to who are members of the **Wholesale Fruit Merchants' Association of Victoria** the following list is given. All are members of the above Association, and are registered firms carrying on business in the

WHOLESALE FRUIT MARKET, MELBOURNE.

STAND NUMBERS ARE AS INDICATED IN PARENTHESES.

T. STOTT & SONS PTY. LTD. (26-36).
H. L. E. LOVETT & CO. (23).
A. E. PITT (14).
J. DAVIS PTY. LTD. (8).
W. S. TONG (31).
SILK BROS. PTY. LTD. (24-25).
J. G. MUMFORD (35).
GOLDEN VALLEY FRUIT CO. PTY. LTD. (15).
J. W. ROSS (13).
H. M. WADE & CO. (21).
DAVID SMITH PTY. LTD. (3).
SILBERT SHARP & DAVIES PTY. LTD. (17).
WATKINS FRUIT COMPANY PTY. LTD (5)
G. WOOLF & SONS (29-30).
R. CORNISH & SONS (5).
J. HYMAN & SON (51).
HERBERT WILSON PTY. LTD. (10).
FRANK BOOTH & SONS PTY. LTD. (16).
GEO. LISTER PTY. LTD. (12).
TIM YOUNG & CO. PTY. LTD. (18).
F. W. VEAR PTY. LTD. (28).
YEE HOP LOONG & CO. (32).
H. LOUEY PANG & CO. PTY. LTD. (4).
WING YOUNG & CO. (38).
D. MENTIPLAY & CO. PTY. LTD. (27).
PRICE & KING PTY. LTD. (2).
REGAN & KENNY (Successors to Wm. Sweeney). (33).

Correspondence is invited by the Association.

Office : 21 Wholesale Fruit Market, Queen Street, Melbourne. Phone: F 4866.

Young Farmers' Activities

YOUNG FARMERS ON ORCHARDS.

Contributing Much for Future Success.

The lack of labor is already being felt by orchardists. Sons and employees of owners as well as owners themselves joining the military forces are depleting the labor available and gives added interest to the fine work being done by Young Farmers' Clubs scattered throughout the State. The Victorian Young Farmers' Clubs' Association is to be commended for their extensive programme of work and again many new clubs are being organised. Lectures and instruction classes are being given regularly by officers of the Association.

Most clubs combine fruit culture with other spheres of primary production, and the coming generation are receiving technical knowledge as never available in earlier days. The result cannot but be of intense value to the industry, and budding orchardists are accepting the facilities offered with relish. In addition, patriotic funds are being assisted by the operations of the clubs, many of which are devoting what returns they get to this worthy cause.

Several homes for boys have organised clubs since last report, adding a practical training in fruit and vegetable production to their regular activities. The officers of the Association do not restrict their visits to metropolitan areas, but have visited many distant country centres since last report.

The variety of interests shown by clubs augurs well for the future success of members and special classes for girls including household and farm duties, in addition to the many angles of instruction for boys are part of the Association's service.

Recent reports include the establishment of clubs at Bayswater, Toomuc Valley, Wantirna South, Mulgrave, where 26 fruit trees and 4 plots of cabbage have been planted, Scoresby where poultry, Jersey calves, Brussels sprouts are included in the interests, Box Hill where dairying and pasture improvement are majored, Hepburn with sub-clovers and cookery for girls, Charlton elected officers and decided to go enthusiastically into Club activities and also formed a senior section to assist the younger members, Lake Marmal is organising a club as soon as the new school teacher arrives.

So this valuable work is being extended and the youth in country districts is being enlisted to learn the technical side of primary production. To Young Farmers' Clubs will go the credit for more interest in community activities and for preparing the coming generation to carry on the good work now being done by their fathers and mothers.

During August a team of selected Young Farmers from Victoria attended the Brisbane Royal Show and camped in the show grounds. Instruction in judging was given during the week of the show.

REPLACING MILITARY VOLUNTEERS IN N.S.W.

Kyogle's Junior Land Army.

What is termed a Junior Land Army has been formed at Kyogle, N.S.W. It consists of selected boys who will work on farms and help to meet the demand for labor depleted by older men joining the defence forces. Young Farmers' Clubs are forward in this movement. Such jobs as milking, stock feeding, maize husking, vegetable growing and other less technical work can be done well by boys who not only want to help in the national emergency but also to gain practical experience in many forms of farm work and primary production.

As in Victoria, the N.S.W. Young Farmers' Clubs are contributing much towards training boys and girls in all kinds of farm work. The girls are taught cooking and the sort of work which a farmer's wife does so well, including vegetable growing, bee keeping, butter making and jam and preserve making. Looking forward to carrying on the production of food sources, the work of the Young Farmers' Clubs must receive the highest recognition.

VICTORIAN YOUNG FARMERS' SCHOOL PLANNED FOR OCTOBER.

INSTEAD of arranging the usual camp for junior members of Young Farmers' Clubs, the Northern District Advisory Council has decided to conduct a week's special school in Bendigo (V.) for Agriculture and homecraft instruction. This will probably be held towards the end of October, and the Young Farmers' Clubs Association will make a further announcement at an early date.

The knut entered the hosier's shop.

Knut: "Miss, have you ties to match my brown eyes?"

Saleswoman: "No, but we have soft hats to match your head."

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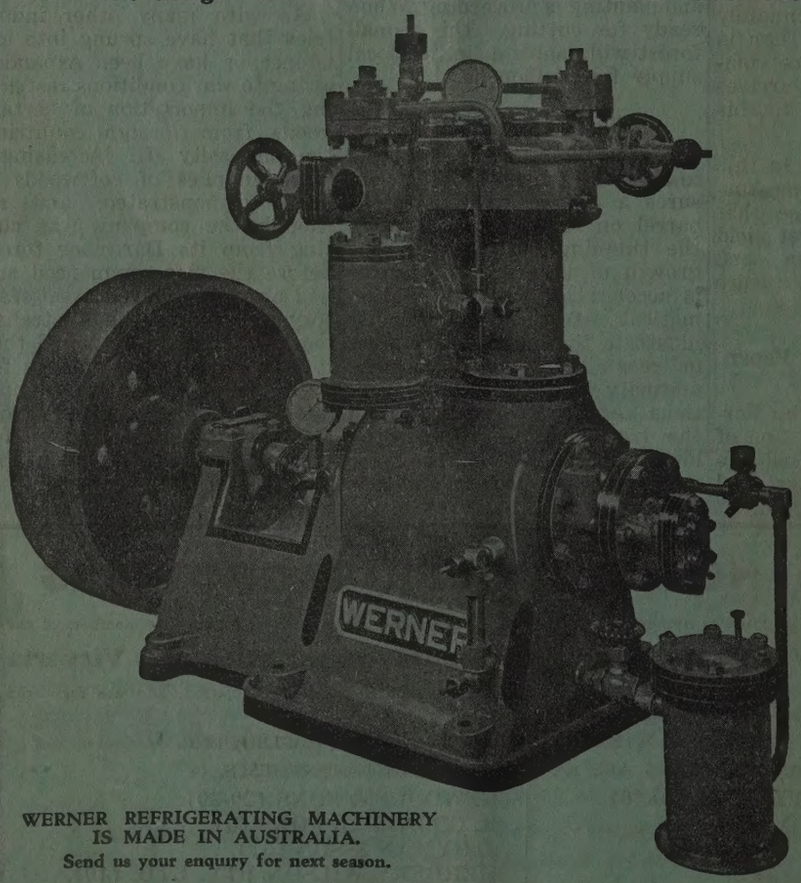

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